

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1167—Vol. XXVIII.]

LONDON, SATURDAY, JANUARY 2, 1858.

STAMPED... SIXPENCE.  
UNSTAMPED... FIVEPENCE.

**MR. JAMES CROFTS, MINING AND SHAREBROKER,**  
No. 1, FINCH LANE, LONDON (established 14 years), TRANSACTS every kind of BUSINESS IN MINING SHARES, but, not being a DEALER, BUYS and SELLS only on orders confined to him.  
The important reduction in the value of money implies a termination to the late rise, so far as it has been caused or continued by its late unprecedented dearness, and must have an immediate beneficial effect upon all markets, but of the mining market (as a speculative one) in particular. Mr. Crofts can now confidently anticipate large profits to purchasers who come into the market without delay, and thus avail of the present depressed rates, and especially in mines whose value have been tested by the severe and long-continued pressure, namely, amongst many others, —  
Wheal Edward. Kitty (Lelant). West and North Basset.  
Vale of Towy. St. Day United. East Russell.  
Northridge Consols. Providence. East Wheal Busy.  
Pendennis. Margaret. Calstock Consols.  
Catherine and Jane. Wheal Bassett. Okef Tor.  
Mr. Crofts is ready to furnish a list of CHEAP SHARES, such as have receded in value 50 to 75 per cent., and yet have vitality in them to pay profits hereafter.  
\* \* \* Special business in VICTUOUS LADY MINE, and OKEF TOR, Calstock, in 4098 shares, either in buying or selling.

**MR. JAMES LANE, No. 29, THREADNEEDLE STREET,**  
MINING SHARE DEALER.

**JAMES B. BRENCHLEY,**  
DEALER IN MINING, RAILWAY SHARES, &c.  
11, ROYAL EXCHANGE, LONDON.

**MR. PETER WATSON LEAVES TOWN THIS DAY** for CORNWALL, and will be at Great Wheal Vor all next week.  
57, Threadneedle-street, London, Jan. 2, 1858.

**MINE SHARES FOR SALE.**—  
Upwards of £8000 worth of valuable MINE SHARES, some of which, I have no doubt, will have a rise of 500 or 600 per cent. during this year.—Apply to Mr. LELAND, 4, CUSHION-COURT, Old Broad-street, E.C.

**TO CAPITALISTS.—RELIABLE INFORMATION** may be obtained on application to the undersigned, in respect of MISCELLANEOUS SECURITIES generally. BANKS, INSURANCE SHARES, LAND COMPANIES, MINES (British and Foreign), RAILWAYS, FOREIGN STOCKS, and the PUBLIC FUNDS BOUGHT and SOLD at the closest market prices, and at moderate commission. References given and required. JOHN BATTERS, Stock and Sharebroker.  
26, Throgmorton-street, London, E.C.

**MR. JOSIAH HUGO HITCHINS** (Consulting Mining Engineer to the Devon Great Consols) informs his friends and capitalists generally that in PRESENT ARRANGEMENTS will enable him to AFFORD GREATER FACILITY and ADVANTAGE OF CONSULTATION on the eligibility and value of MINING INVESTMENTS.

Mr. J. H. HITCHINS will provide correct plans and sections for valuable reference; secure inspections and ensure reports by the best informed, most experienced, and disinterested agents, and will always, when practicable, perform such responsible duties himself.

Mr. J. H. HITCHINS will visit the mines of Devon and Cornwall, the North of England, Ireland, and Wales, to collect the most trustworthy information and opinions on their general working, state, prospects, and value.

Mr. J. H. HITCHINS values his reputation as the projector, and having been for many years the chief superintendent of those wonderful mines, the Devon Great Consols, and others of great importance; and presumes that the valuable experience acquired and matured by him during his well-known successful development of them will guarantee the best advice to capitalists in their investments, both in dividend mines, and those capable of the greatest and earliest success.

Mr. J. H. HITCHINS will offer his best advice and assistance to the projectors of new undertakings of good promise and probable value, and to existing companies, in effecting the best improvements in the underground and surface departments, the machinery, means, appliances, and management generally, of their mines.

Mr. J. H. HITCHINS has no hesitation in saying that mines, judiciously selected, and effectively worked with sound practical judgment and economy, prove very profitable investments.—Tavistock, Jan. 1, 1858.

**MR. E. GOMPERS, MINING SHAREDEALER,**  
3, CROWN COURT, THREADNEEDLE STREET, LONDON.

**TO MINING COMPANIES.—CAPT. JOSEPH RICHARDS** OFFERS HIMSELF AS MANAGER AND PURSER OF MINES.  
Mines Dressed, and Plans and Sections furnished.  
The Dripping and Mapping of Mines regularly attended to.  
Mines inspected either in this country or abroad, on reasonable terms.  
Waterside, Brixton, Exeter, North Devon, Jan. 1, 1857.

**JAMES H. COCK, MINE SHAREBROKER, GENERAL** COMMISSION AGENT, AND ACCOUNTANT, REDRUTH, CORNWALL.  
Orders for the PURCHASE and SALE of MINE SHARES, MINING MATERIALS, &c., promptly attended to.

**CAPT. THOMAS DUNN, of TAVISTOCK,** undertakes to INSPECT, REPORT, and SURVEY any MINES or MINERAL PROPERTY in ENGLAND, IRELAND, SCOTLAND, or WALES. No objection to take the management of any mine or mines in the neighbourhood of Tavistock.

**MR. PALMER, NORTH DERBYSHIRE MINERAL RECORD** OFFICE, MARKET HALL BUILDINGS, CHESTERFIELD.  
DEALER IN ALL DESCRIPTIONS OF MINING SHARES AND STOCKS.  
Several Derbyshire mines now offer great advantages to investors.

**JOHN GLEDHILL AND CO., MINE AGENTS, SHARE** BROKERS, AND GENERAL DEALERS.  
MINING RECORDS OFFICE, 12, SOUTH PARADE, LEEDS.

Mines well selected are the best investments, paying from 15 to 30 per cent. on the outlay. They have to OFFER SHARES in most of the DIVIDEND and PROGRESSIVE MINES, and are ready to give every information relative to all mining matters.—Dated Jan. 8, 1858.

**MR. WILLIAM MICHELL, MINING SHAREDEALER AND** COMMISSION AGENT, 3, AUSTINFRIARS, LONDON, E.C.

For the unexpected amount of support W. MICHELL has hitherto received from his friends and the public, he need hardly assure them of his grateful acknowledgments. He would now recommend those who have spare capital to lose no time in allowing him to make a judicious selection of a few mines for investment, as there is no doubt that mining shares will follow the reaction that has taken place in all other stocks and securities, and that great profits may be quickly realised.

W. MICHELL has had 25 years' practical experience in the various branches of mining; and by making periodical inspections of mines in Devon and Cornwall, is better able to make a selection of those mines most likely to give the greatest amount of profit for the smallest outlay.—Jan. 1, 1858.

**GEORGE SPATLEY, No. 15, OLD BROAD STREET, E.C.,** continues to TRANSACT BUSINESS in MINES, RAILWAY, GAS, BANK, and INSURANCE SHARES; and a carefully selected list of these securities, for speculation or investment, will be forwarded on application.

WANTED, the following SHARES, for which holders wishing to sell are requested to state lowest price net:—  
3 Alfred Consols. 3 Mary Ann. 5 Ding Dong.  
3 Wheal Margaret. 15 Herodfoot. 10 Wheal Wrey.  
3 Providence Mines. 50 Vale of Towy. 2 West Basset.  
5 North Basset. 2 Botallack. 4 Trelawny.  
10 North Frances. 75 East Caradon. 10 Pendennis.  
20 Ludcott. 20 Wheal Harriett.

**HENRY GOULD SHARP,**  
BRITISH AND FOREIGN STOCK AND SHAREDEALER,  
31, FOLKLY, LONDON, E.C.

**SHARES FOR SALE, at net prices:—**  
28 Pedn-an-dra, 12s. 6d. 10 Carnarvon, 5s. 200 Chancellorsville, 2s. 4d.  
90 Molland, 1s. 3d., calls paid. 10 South Bog, 19s. 9d. 30 Portlough, 30s. 3d.  
100 Tamar Consols, 2s. 6d. 60 Wheal Harriett, 6s. 10 W. Edward, 27s. 3d.  
150 East Hender, 10s. 70 Bull. & Bass, 10s. 7d. 30 E. Wh. Russell, 61s. 9d.  
10 Bull and Bertha, 5s. 6d. 10 South Buller and West. 1 W. Margaret, 244s. 4d.  
all calls paid. Penrith, 10s. 20 Vale of Towy, 17s. 6d.  
20 Great Hewas, 17s. 6d.

**SHARES WANTED.**—100 Times Fire, 2s. 9d.; 100 Unity Fire, 6d.  
Bankers: London and Westminster Bank, Lohbury.

**MR. GEORGE BUDGE, of 4, BIRCHIN LANE, CORNHILL,** LONDON, has SHARES FOR SALE at the following prices:—  
2 Rosewarne, 233s. 10 East Margaret, 23s. 15 Wh. Edward, 26 19s.  
3 Providence, 237s. 100 Wheal Zion, 10s. 25 Great Wheal Busy.  
50 Gawton, 12s. 100 Hawkmoor, 17s. 6d. 2 West Sharp Tor, 234s. 4d.  
50 Tamar Consols, 2s. 6d. 200 Wheal Harriett. 50 W. Grenville, 39s. 6d. 20 West Basset, 234s. 4d.  
50 Cath. and Jane, 6s. 7d. 1 Gran. & St. Aub., 237. 50 Drake Wells, 29s. 6d.  
50 Pendennis, 63s. 3d. 3 Trelawny. 10 Lady Bertha, 19s. 9d.  
1 Devon Great Consols. 50 Pedn-an-dra, 10s. 6d. 10 West Basset, 234s. 4d.  
50 Bull. & Bass, 10s. 100 College Mines, 3s. 15 East Buller, 23s. 4d.  
50 Redmoor. 50 Tincroft. 10 North Buller, 23s. 4d.  
50 West Grenville, 4s. 6d. 10 Ch. and Wentw., 23s. 25 Great Hewas, 17s. 6d.  
1 Old Tolgus Va., 234s. 5 North Roskear, 23s. 10 Calstock Consols.

**G E O R G E M O O R E,**  
DEALER IN MINING SHARES.  
1, CROWN COURT, THREADNEEDLE STREET.

GEORGE MOORE, in the Mining Journal of the 7th November last, advised his friends to postpone their orders for the purchase of Mining Shares, as he believed, "from the universal and daily increasing demand for money at higher rates, coupled with the decline in metals, that shares must rise at lower quotations," a suggestion that has unfortunately been too amply verified.

One of the chief causes of loss on mining shares arises from the fact that purchases are generally made at periods when metals are at their culminating point, and the money market at the easiest.

From a careful survey of the opening prospects of the new year, GEORGE MOORE is of opinion that the present affords a better opportunity for successful purchases than has occurred for a long time, the best description of shares being evidently at their minimum.

If an additional reason for an immediate investment were needed, GEORGE MOORE would point to the great probability of metals generally advancing, consequent to the relief afforded to commerce by the reduction of the rate of discount, which will no doubt be eagerly availed of for exporting to those countries which are the greatest consumers, and which, owing to the late panic, have been almost entirely exhausted of stock.

Alfred Consols. North Basset. Virtuous Lady & Wheal  
Craddock Moor. North Buller. Bedford.  
Cargill. North Downs. West Caradon.  
Ciljash and Wentworth. North Wheal Crofty. West Basset.  
Corvon Hill. North Frances. West Seton.  
Dorset Great Consols. North Wheal Robert. West Alfred Consols.  
Dolcoath. North Wheal Trelawny. West Fowey Consols.  
Drake Wells. Pendennis Consols. West Par Consols.  
East Alfred Consols. Par Consols. Wheal Agar.  
East Basset. Portkellis United. Wheal Arthur.  
East Gunnis Lake. Providence Mines. Wheal Bassett.  
East Tamar. Round Hill. Wheal Buller.  
East Rosewarne (Gwin.) South Corn Brea. Wheal Edward.  
East Trefail. South Corn Brea. Wheal Kitty (St. Agnes).  
East Wheal Russell. South Gwendraeth. Wheal Kitty (Lelant).  
Great South Tolgus. South Wheal Seton. Wheal Grenville.  
Grambler and St. Aubyn. Sortridge Consols. Wheal Margaret.  
Great Wheal Vor. South Caradon. Wheal Mary Ann.  
Great Hewas. South Tolgus. Wheal Trelawny.  
Great Wheal Alfred. South Basset. Wheal Trefail.  
Great Baddern. South Wheal Frances. Wheal Trefail.  
Herodfoot. St. Day United. Wheal Union.  
Hington Down. Tincroft. Wheal Wrey.  
Kelly Bray. Tamar Consols. Wheal Zion.  
Lady Bertha. Trewatha. Wicklow.  
North Roskear. Vale of Towy.

The above are all bona fide properties, most of them possessing one, if not both, of the principal elements of success—"good locality and management," but GEORGE MOORE has, after critical comparison of their respective merits, and having particular regard to the question of time, determined unhesitatingly to recommend the following as likely to afford wider margin for early profit:—

Alfred Consols. North Downs. Virtuous Lady and Wh.  
Devon Great Consols. North Wheal Crofty. Bedford.  
Drake Wells. North Frances. West Basset.  
East Alfred Consols. Par Consols. West Seton.  
East Basset. Round Hill. West Fowey Consols.  
East Gunnis Lake. South Corn Brea. Wheal Arthur.  
East Tamar. South Corn Brea. Wheal Bassett.  
East Wheal Russell. Sortridge Consols. Wheal Edward.  
Great South Tolgus. South Caradon. Wh. Kitty (St. Agnes).  
Great Baddern. South Wheal Frances. Wheal Grenville.  
Herodfoot. Tamar Consols. Wheal Mary Ann.  
Kelly Bray. Tincroft. Wheal Trelawny.  
North Roskear. Vale of Towy. Wheal Union.  
North Buller. Wheal Wrey.  
GEORGE MOORE will be happy to render detailed information on written or personal application.—Jan. 1, 1858.

**MESSRS. J. J. REYNOLDS AND SON,**  
No. 1, ROYAL EXCHANGE BUILDINGS, LONDON, E.C., ENGLISH AND FOREIGN STOCK, RAILWAY, AND MINING SHAREBROKERS, beg to inform their friends and the public that the present time is a FAVOURABLE OPPORTUNITY for INVESTMENT in many undertakings of a substantial character, paying dividends worthy the attention of the capitalist.

Every information can be obtained at their offices, which their practical experience enables them to give, not only of mines and other properties of established value, but of those that are not.

**MESSRS. POWELL AND COOKE,**  
8, HERCULES CHAMBERS, OLD BROAD STREET, LONDON.

After the long depression that has existed, we feel much pleasure in noticing a better tone in the Mining Market. Several good mines have declined in price, owing to the cause named (while their prospects have much improved), will advance again during the coming months. And we are of opinion that an investment in the following mines would prove highly remunerative. The following table will show the highest prices attained during the past year, and the present market value of the shares named:—

	Highest price.	Present price.
Wheal Edward	410s.	£ 7 7 1/2
St. Day United	1 1/2	1 1/2
North Basset	35	21 1/2
West Basset	32 1/2	21 1/2
Vale of Towy	21s.	16s. 6d.
East Wheal Russell	3 1/2	3 1/2
Drake Wells	3 1/2	1 1/2
Great Hewas	1 1/2	10s.
Wheal Kitty (St. Agnes)	8	3 1/2
Calstock Consols	6 1/2	5 1/2
Tincroft	5 1/2	3 1/2

Many other mines in the list are well worth the attention of parties who are disposed to run the risk of a small loss, with the view of making large profits. Messrs. Powell and Cooke will be happy to afford information (to those requiring it) as to the mines which afford the greatest chances of success; and will transact any business entrusted to them at net prices, or on commission, at 2 1/2 per cent.

**JAMES HERRON has FOR SALE** the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

10 Bolling Well, 28s. 9d.	480 Gwyddr.	10 South Caradon, 234s. 4d.
25 Balnoon Cons., 10s. 6d.	5 Hington Down.	10 St. Aub. & Grylle, 244s. 4d.
25 Cath. and Jane, 6s. 10d.	20 Holmbush, 37s. 9d., last call paid.	30 Sou. Condurrow, 3s. 6d.
1 Cefn Brynno, 24s.	2 Kelly (Lel.), 212 18s. 9d.	20 Tamar Consols, 17s. 9d.
20 Chancellorsville, 2s. 9d.	30 Kelly Bray, 23s. 6d.	1 Trumpet Cons., 219s. 4d.
30 College Mines, 3s. 5d.	10 Lady Bertha, 19s. 9d.	5 Tincroft, 23 18s.
10 Drake Wells, 28s. 9d.	20 North Trelawny.	10 Trelawny, 23s. 6d.
20 Dyffryn Castell.	4 N. Basset, 212 18s. 9d.	20 Vale of Towy, 18s. 9d.
5 East Buller, 23s.	20 North Downs.	5 Wheal Wrey, 23s. 4d.
20 East Tamar.	20 North Frances.	15 Wheal Cupid, 10s. 6d.
20 East Providence.	20 Pen. & E. Grin., 11s. 9d.	1 Wheal Margaret.
10 East Trefail, 24s.	20 Pen. & E. Grin., 11s. 9d.	1 Wh. Mary Ann, 244s. 4d.
6 East W. Hs., 28s.	20 Pen. & E. Grin., 11s. 9d.	5 Wheal Edward, 234s. 4d.
20 Gawton Unit., 12s. 9d.	1 Rosewarne, 233s.	5 West Basset, 234s. 4d.
5 Great Alfred, 24 1s. 9d.	20 South Bog (Limited).	10 Wheal Hender, 14s.
5 Grenville, 32s. 6d.	Shropshire.	10 West Par, 8s. 9d.
20 Great Hewas, 16s. 9d.	5 St. John del Ray.	20 West Grenville.

As was anticipated, the Bank has reduced the rate of interest to 8 per cent., and the money market is daily becoming easier; this must have an influence in the Mining Market, and it is fair to presume the price of well-selected mines will soon be considerably higher. Those, therefore, who are disposed to invest should not longer delay making their purchases.

Mr. HERRON recommends with confidence the following—Trelawny, Mary Ann, Wheal Margaret, Vale of Towy, Drake Wells, South Caradon, West Caradon, West Basset, Kelly Bray, Grambler and St. Aubyn, Stray Park, and St. Aubyn and Grylle, 3, Adam's-court, Old Broad-street, London, Jan. 1, 1858.

**MESSRS. VIVIAN AND REYNOLDS, MINE AGENTS,**  
68, OLD BROAD STREET, LONDON, E.C.

Messrs. VIVIAN and REYNOLDS are enabled, through the long experience of Mr. W. C. Vivian as an underground agent and manager of mines in Cornwall, and in various foreign countries, to afford information on most important mining districts; and to inspect and report on mines. They are also enabled, by the several years' acquaintance of Mr. J. J. Reynolds, jun., with the transaction of the London share market, to obtain every advantage for those who may want either to buy or sell mining or any other description of stock.

Messrs. VIVIAN and REYNOLDS have daily information from the principal seats of mining, which is at the service of those who may honour them with their confidence. The value of mining stock has been depreciated in value, in common with almost every other description of property, by the disordered state of the money market; those persons, therefore, who are in a position to purchase at present prices have more than ordinary chances in their favour of profiting by a rise in market value. It is generally supposed that the worst of the financial pressure has been passed, and the downward tendency in the prices of copper and tin has been arrested, so that there is every probability that the value of mining shares will soon again rally.

Messrs. VIVIAN and REYNOLDS are, therefore, of opinion that the present is a favourable opportunity for purchasing shares in mines that are conducted on sound business principles, and situated in good localities, and they recommend the following:—

North Wheal Crofty.	West Grenville.
North Roskear.	South Cornbury.
North Frances.	New Wheal Vor.
Cambridge Year.	

**MR. T. P. THOMAS, MINING AUCTIONEER,**  
2, CROWN COURT, THREADNEEDLE STREET, LONDON.

**MR. JOHN R. PIKE, MINING AND SHAREBROKER,**  
3, PINNER'S COURT, OLD BROAD STREET, LONDON.

**WILLIAM MARLBOROUGH, MINING AGENT,**  
(For many years with Mr. T. P. Thomas),  
57, OLD BROAD STREET, LONDON.

**MR. WILLIAM MOORE, STOCK AND SHAREDEALER,**  
11, HERCULES CHAMBERS, OLD BROAD STREET.  
N.B. Business transacted in every description of stock and shares.

**MR. W. H. BRUMBY, STOCK AND SHAREBROKER,**  
1, QUIET STREET, BATH, is in a position to give the BEST ADVICE in the SELECTION and PURCHASE of DIVIDEND and PROGRESSIVE MINES.

**MR. R. LINTHORNE, ENGLISH AND FOREIGN MINING** AGENT, 3, ADAM'S COURT, OLD BROAD STREET, LONDON.  
BUSINESS TRANSACTIONS in all ENGLISH and FOREIGN MINES, and other SECURITIES, on the usual terms of commission. Information afforded in respect to Dividend-paying and Progressive Mines.

**MR. FRANCIS R. BILL, CONTRACTOR, AND GENERAL** ACCOUNTANT AND AUDITOR.  
32, BUCKLESBURY, LONDON, E.C.

CONTRACTOR for the SUPPLY of RAILWAY MATERIALS of every description. Estimates prepared. Agencies undertaken. ACCOUNTANTSHIP BUSINESS of all kinds performed under contract, whereby a considerable saving on the usual cost may be effected.

**MR. H. HUXHAM, COLLIERY VIEWER AND MINING** ENGINEER, UNDERTAKES the SURVEYING, VALUING, or AGENCY of MINERAL PROPERTIES, the WINNING, WORKING, or VIEWING of COLLIERIES, &c., on moderate terms; and begs to assure those who may favour him with their commands that all business entrusted to his charge shall receive prompt attention, and be executed with the utmost fidelity and care. References and testimonials of the highest character.

Mr. H. HUXHAM has room for TWO ADDITIONAL ARTICLED PUPILS, who would have an excellent opportunity of attaining a thorough knowledge of practical and theoretical mining engineering.—Cwm Rhonda, Pont-y-pridd.

**GOLD MINING COMPANIES.—SHAREHOLDERS** in the different CALIFORNIAN and AUSTRALIAN GOLD MINING COMPANIES are requested to CALL on Mr. F. SQUIRE, 74, King William-street, City, that he may submit to them a plan by which the shares in such companies, which are now valueless, will be again marketable.

74, King William-street, City, Dec. 24, 1857.

**SHARES WANTED** in BOTALLACK, NORTH ROSKEAR, PROVIDENCE, PAR CONSOLS, KITTY, MARGARET, and OTHER DIVIDEND MINES.—Apply, by letter only, with lowest cash price, to Mr. GOODALL, 23, Whitecross-street, City.

**APARTMENTS IN LONDON.**—A GENTLEMAN about to reside in London can be FURNISHED with a HOME, where the family is small, and no lodgers are kept. To a young gentleman from the country, about to enter into a situation, commercial or professional, great advantages could be secured. Charges very moderate.—Apply by letter (post paid) in the first instance, addressed "R. F., Mining Journal office, 26, Fleet-street, London."

**BIRMINGHAM AGENCY.—WANTED, by a GENTLEMAN** well known to the merchants and manufacturers of Birmingham, and who has offices in a first-rate situation, an AGENCY, or the SECRETARYSHIP to a COMPANY, where the whole of his time would not be required. First class references.—Apply, by letter only, "179," Midland Counties Herald office, Birmingham.

**TO COAL AND IRONSTONE MASTERS.—WANTED, by the** ADVERTISER, a SITUATION as RESIDENT VIEWER and COLLIERY MANAGER. References and testimonials of the highest character can be given.—Address, "E. W., Star of Guest office, Cardiff."

**TO COLLIERY AND MINING PROPRIETORS.—WANTED,** a SITUATION as SURVEYOR, DIALLER, CAPTAIN'S ASSISTANT, or STOREKEEPER, by a YOUNG GENTLEMAN, of 20 years' practice. No objection to joining a party for any foreign works.—Address, "R. C., Mining Journal office, 26, Fleet-street, London."

**THE WARRINGTON GASLIGHT AND COKE COMPANY.**—MANAGER WANTED.—The directors are prepared to APPOINT a MANAGER, who must combine a practical knowledge of and experience in all the details connected with the making and supply of gas, and book-keeping relating thereto. The salary will be £500 per annum. Satisfactory security will be required.—Applications in writing, under seal, with testimonials, must be addressed to the directors on or before the 14th January, 1858, under cover to Mr. JAMES BARRATT, solicitor, Warrington. Warrington, December 18, 1857.

**TO IRONMASTERS.—The ADVERTISER has been MANAGING** FORGE and MILLS for the last 20 years, and will shortly be OPEN to a FRESH ENGAGEMENT. Unexceptionable references.—Address, W. B. FORKIN, chemist, Maesteg, Bridgend, Glamorganshire.

**MINERAL DISCOVERY TO LET ON LOCH FINE.**  
See Mining Journal of 19th December, 1857, page 882.

**WANTED TO LEASE, or otherwise, a MINE** containing ORES of NICKEL and COBALT.—Address to Mr. NICHOL, Mining Journal office, 26, Fleet-street, London.

**TO BE SOLD, CHEAP, ONE 30 in. PUMPING ENGINE** and BOILER, complete, in good condition (near Liskeard); ONE 36 in. ROTARY ENGINE, with FLY-WHEEL and ONE 24 in. (near Plymouth).—For particulars, apply to Mr. H. WILLS, 17, George-street, Plymouth.

**WANTED, a GOOD SECOND-HAND PUMPING ENGINE,** 36 to 45 in. cylinder.—Apply to W. H. M. BLENK, Esq., Birmingham.

**WANTED, a 30 ft. WATER-WHEEL, 3 or 4 ft. breast,** with crusher, &c., complete, for a mine in Cardiganshire. To be delivered at Aberystwyth.—Apply, stating all particulars, to Mr. CHAS. D. BURT, 15, Union-court, Old Broad-street, London, E.C.

**MANGANESE.—SOCIÉTÉ GÉNÉRALE DE MANGANESE,** EHRENBREITSTEIN.  
AGENT—H. SCHOLFIELD, 6, Sandhill, Newcastle-on-Tyne.

**MESSRS. A. J. HUTCHINGS AND CO.'S** PATENT IMPROVED WIRE ROPE.

SOLE MAKERS TO THE LORDS OF THE ADMIRALTY, THE FRENCH and TURKISH GOVERNMENTS, and the principal Colliery Proprietors throughout the kingdom.

MANUFACTORY, MILL WALL, POPLAR, LONDON.

ROUND and FLAT ROPES of every description, suitable for mining operations or other purposes, GALVANISED or UNGALVANISED, MANUFACTURED upon the newest and most improved machinery, ensuring greater pliability, durability, and strength; and is admitted by the principal coal proprietors to be far superior to any other kind of wire rope. The superiority of these ropes over hempen cables, in point of strength, lightness, durability, and cost, is admitted by all who have tried them.

GUIDE ROPES, SIGNAL CORD, LIGHTNING CONDUCTORS, &c.

**LEAD FOR EXPORTATION.—PIG-LEAD** (hard and soft) SOLD at LOW RATES. THE BEST PRICE given for LEAD ASHES, &c., and OLD LEAD.—ROUSELL and Co., Southwark Lead Works, Gravel-lane, London.

**NICKEL AND COBALT REFINING, and GERMAN SILVER** WORKS, 10, OZZELL STREET NORTH, BIRMINGHAM.

STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—REFINED METALLIC NICKEL. OXIDE OF COBALT. (WIRE, &c.) REFINED METALLIC WISMUTH. GERMAN SILVER—in INGOTS, SHEET, NICKEL and COBALT ORES PURCHASED.

**THE MIDLAND IRON COMPANY, ROTHERHAM, YORK-**SHIRE, MANUFACTURERS OF RAILWAY TYRES and AXLES FOR LOCOMOTIVE ENGINES, CARRIAGE and WAGON WHEELS. From the tests to which this iron has been submitted by engineers and railway companies during several years, its superior quality has been generally acknowledged, and can be unhesitatingly affirmed.

**EAST WHEAL RUSSELL.** ALFRED CONSOLS. EAST ALFRED. YARNER.

**SPECIAL REPORTS** on the above MINES, by eminent practical authorities, will appear in Mr. MURCHISON'S REVIEW, to be published in about ten days, price One Shilling, at 117, Bishopsgate-street Within, London.



## THE PROGRESS OF MINING IN 1857.

By J. Y. WATSON, F.G.S.

## BEING THE FOURTEENTH ANNUAL REVIEW.

At the end of 1856, I wrote that the most exciting part of that year had been towards its close. I might almost say the same of 1857, though in a different sense, for while the excitement noticed in Dec., 1856, was from increased prosperity in mining, the sudden rise in the price of copper, and the healthy tone of the money market; the excitement of the past few months has been, to many, the excitement of despair. In a Review like this, it is not for me to enter into the details of the monetary panic, though it is the most memorable, as well as lamentable, feature of the year, but merely to notice its effects upon mining operations. In Nov. and Dec., 1856, copper rose suddenly, and a considerable rise in the standard followed; this gave such life to mining that it was difficult to get shares in good dividend mines, and I ventured to predict increased profits from the old mines, and the addition of fresh mines to the Dividend List. For some time these predictions were verified, as a list of the dividends paid for the first six months will show. Then the standard began to decline, some of the old mines began to reduce their returns, the shares drooped, and when, owing to the monetary crisis, the smelters suddenly dropped the standard to such a ruinous extent that the wealthier mining companies threatened to withdraw their ores from the ticketings, shares in mines which twelve months before could scarcely be obtained became almost unsaleable. Yet a large amount of attention has been given throughout the year to young and progressive mines, where the management is known to be good, and no fear of liabilities beyond current expenses accruing; and when the Bank of England raised the rate of discount to 10 per cent., and joint-stock banks were giving 8 per cent. for money on deposit, it had not so much effect upon these speculations as many prophesied, though, of course, prices have been affected, especially when sales have been pressed. Taken in the aggregate, I look upon the effects of the panic as having a tendency to affect dividends for a time, both in lead, tin, and copper mines; to stop the working of many old mines, which have been struggling on for years past, selling quantities of ores, but at no profit to the shareholders; and of purging the market of many worthless schemes. How far the decrease in dividends has been sufficiently discounted in the drop which has already taken place in shares will be more clearly seen when treating of the fluctuations in the market.

**COPPER.**—In my remarks upon this metal, at the close of 1856, strong hopes were expressed of a prosperous coming year for those interested in it; and the reality for a time exceeded our expectations, for a continuous course of high prices ruled, with the prospect of even higher, up to the commencement of the American panic, which so quickly convulsed the whole of Europe, and told its tale upon our own "standard." Much dissatisfaction was caused by the smelters continuing the price of copper unchanged, whilst week after week they reduced the standard for ore; and much bad feeling would have been avoided had the change in price been simultaneous. But this, we are told, could not be, since large stocks of ore are required by the smelters, and, consequently, as the standard advances first, the price of copper is maintained after the fall of the standard. Another ground of complaint against the smelters is the manner of carrying out changes in price when necessary, it being thought by many that three reductions of 5s. per ton each time would have been better than one of 15s. per lb., which was the reduction made on the 8th. Others think it more desirable (and it seems so) to make the necessary changes at once, and thereby give confidence to the buyers of copper, that the ruling price is likely to continue. Next to a good price is a steady one, and we do not doubt that after some months, when the present general distrust which is paralysing all business shall have given place to something akin to confidence, we may again see an advance of at least 20s. in the standard for ores. As the Americans boast of their recuperative qualities, we hope they will soon again be amongst our best customers, instead of, as for the last month or two, doubly depressing our market, by sending hither large quantities of copper as well as of ores. Under the present circumstances of the copper market, mines losing money should keep down every item of expenditure to the lowest possible point, in the assurance that a few months will greatly mend their position; others, capable of making returns in excess of their expenditure, should limit sales to meet actual costs. The reaction in copper may be even sooner and greater than we look for, seeing that every foreign market is understocked; and the depression will not have been without good results, if it causes shareholders to take our advice, and look more closely into the general management and details of their mines. Too much is in some cases left to, and in others assumed by, the managers or pursers, and it is quite time these gentlemen should know they are the agents and servants of the shareholders, and, as such, may be displaced. As a rule, in my applications to pursers for information I meet with the greatest courtesy and attention; but there are some who manage mines just as they please, and I verily believe look upon questions, even from shareholders, as pieces of great impertinence. Where managers are left too much to themselves they are apt, by clever working, to convert the mines into little freehold estates for themselves; and it is amazing to observe how some concerns are managed, so as to meet the costs and no more, whatever the standard may be: others, possibly to prevent enquiry and examination, give an occasional dividend. Now, this we conceive to be a lord's question as well as a shareholder's, and we hope the hint may be taken by the lords' agents. Sinking, driving, and cross-cutting are necessary to proper mining, and these, too often we fear, are discontinued, lest discoveries be too quickly made, many agents being satisfied, whilst making both ends meet, with the lengthened existence of the mine, quite disregarding the fact that it must be both the lords' and shareholders' interest to get out the ore in their sett in the shortest possible time consistent with fair mining. We trust these points will have more attention in future from "One and All," and recommend a more general use of proxies when shareholders cannot be present at meetings in person. This, however, is all a digression, and we must return to a weightier subject.

**LEAD.**—The demand for this article throughout the year has been good, and on the whole the price has been remunerative and steady. It is more than probable that the demand has outrun the production, although not strongly evidenced in the price; and what was used as an argument in favour of the free import of copper ores is now, probably, operating upon lead. When the great outcry was raised against foreign copper ores, the miners were met by the opposite party with the argument, that it was not a question of stopping foreign mines, for that was beyond our power; and seeing that the ores would be raised, and, if not admitted here, smelted abroad, was it not more to the interest of the English miner to admit them, and so control the price of copper? England has since been the copper market of the world; and could it be so arranged that all foreign lead ore should be brought here, it is considered the price of lead would rule much higher; but now, the competition with lead smelted abroad, and by mining companies at home, is ever pressing upon the price. The present position of lead is, on the whole, very satisfactory, considering the general stagnation of trade; the stocks of the smelters have, we suppose, been accumulating, but in the course of three or four months an export demand may be looked for, and then, with the general revival of commerce, we shall have better prices for the ore. We may be wrong, but we hope to see before long the price 23s. to 25s. a ton. To this time, lead mines have not been so seriously affected by commercial distress as those of tin and copper.

**TIN.**—At the close of last year high prices, for some time, were also predicted for this article, and our views were fully realised, the price having ruled for some months even beyond what we expected, and but for the sudden commercial hurricane would probably have remained undisturbed. Tin, so far, has been a severer sufferer through the fearful monetary crisis than any other metal; arising chiefly from the cessation of demand for tin-plates, in which so large a quantity is consumed for the States, and from the large quantity known to be unsold by the buyers at the last Dutch auction. The mines have felt, and will further feel, the reduction in price for the ore, consequently upon the reduced price of tin, but when they consider how very high the price has been, it will be seen that the price likely to rule is not one to cut off all profits, but merely to cut them down. Of course, such mines are alluded to as should be worked in the expectation of profits from what has hitherto been considered a high price for tin, and not from a price called into existence by the competition of speculators in the article. The price paid at the last Dutch sale was from

10s. to 15s. per ton more than any one in this country looked for, and was purely speculative, and the increased profits to the miners may have led them to look less closely into their expenditure. Let them now examine narrowly every article of cost, and whilst allowing their men to have full and fair wages, bear in mind the great reduction in price of almost everything required in mines; for where merchants are also managers of mines, this is not sufficiently looked into. The future of tin no one can foretell, but with the certainty of money being very cheap in two or three months, and with the knowledge that sales for the last two months have been small, it is very evident that all consumers must be getting low in stock, and that when trade begins to revive tin will be in demand, and in all probability at prices which will be both profitable and continuous for the miners. In the mean time, no mine should sell more than will pay the costs; and old mines, not able to pay from a fair price for ore based on 110s. or 120s. for tin, should be considered as doubtful properties. It is one fortunate circumstance that the imports of tin ore from Australia have ceased for some months, and we are informed the quantities likely to come are very small indeed.

From the valuable Mineral Statistics of the United Kingdom, published by Mr. Robert Hunt, F.R.S., I find that in 1856 the copper ores returned by 135 mines in Cornwall and Devon were, 206,177 tons of ore, producing 15,633 tons 17 cwt. 1 qr. 23 lbs. of copper, and 1,241,835 2s. 6d. in money, being about 20,000s. less than the previous year. The average produce per cent. of this ore was 6½ 1-16th; average standard, or value of the copper in the ore, 133s. 13s. The copper sales in Wales during the same period, the produce of Irish, Welsh, and foreign mines, was 42,189 tons of ore, producing 6108 tons 15 cwt. 3 qrs. 17 lbs. of copper, and 628,524 5s. in money; being, also, 20,000s. less than the previous year. The price of metallic copper in London—lowest price, 117s. per ton; highest price, 135s. per ton. The quantity of lead ore raised in the United Kingdom during the same period, from upwards of 400 mines, was 101,997 tons 15 cwt., producing 73,129 tons of lead, 614,188 cwt. of silver, and 1,431,509s. in money; showing a considerable increase over the previous year. The silver realised, at 5s. an ounce, 153,547s. Of the above quantities Cornwall yielded 9973 tons of ore, or 6597 tons of lead, and 248,436 cwt. of silver. Of this silver, Wheal Mary Ann produced 52,638 ounces out of 1314 tons of lead ore; Wheal Wrey, 23,560 ounces out of 1064 tons of lead ore; Wheal Trevelyan, 34,093 ounces out of 1029 tons of ore. The richest ore for silver, however, seemed to be Wheal Langford, in the Callington district; 33 tons of lead ore yielding 1660 cwt. of silver; Holmbush, 18 tons yielded 541 cwt.; Devonshire, yielded 3136 tons of lead ore, 2000 tons of lead, and 77,456 cwt. of silver. Among the mines, South Tamar, which was destroyed by the breaking in of the River Tamar on Aug. 31, 1856, yielded 33,351 cwt. of silver, in 691 tons of lead ore. Shropshire returns her lead ore 4407 tons, and lead 3228 tons; of which quantity Snailbeach produced 2945 tons of ore, and 2120 tons of lead. Derbyshire, 9524 tons of ore, and 6261 of lead. Yorkshire, 12,174 tons of ore, and 8986 tons of lead. Westmoreland, 2923 tons of ore, and 2179 tons of lead. Cumberland, 7311 tons of ore; 5321 tons of lead, and 51,931 cwt. of silver. Durham and Northumberland, 24,125 tons of ore, 17,674 tons of lead, and 79,924 cwt. of silver. Cardiganshire, 5560 tons of ore, 6191 tons of lead, and 38,751 cwt. of silver. Flintshire, 4607 tons of ore, 3513 tons of lead, and 19,341 cwt. of silver. Isle of Man, 3217 tons of ore, 2450 tons of lead, and 60,382 cwt. of silver. Of this quantity, the Foxdale returned 2500 tons of ore and 35,512 cwt. of silver. Scotland, 1931 tons of ore, 1416 tons of lead, and 6289 cwt. of silver. Ireland, 2483 tons of ore, 16,002 of lead, and 3700 cwt. of silver.

The tin ore raised and sold in Cornwall and Devonshire was 9350 tons of black tin, yielding white tin 6177 tons, and money 663,850s.—considerably more than the previous year. Of the above quantity, Devonshire yielded 136 tons 14 cwt., realising 9660s. 10s. 3d.

The returns of zinc were 9003 tons, realising 27,445s. 5s. 6d. Of this Cornwall produced 2316 tons; Devon, 660 tons; Isle of Man, 3000 tons, &c. Iron pyrites, or sulphur ore, 52,060 tons, 46,066s. 9s. 9d. Of this Ballymurtagh (Wicklow Copper) yielded 21,861 tons, 20,414s. 12s. 7d. Arsenic, 513 tons 15 cwt., 1011s. 6s. 9d., all Cornwall. Nickel, from St. Austell Consols, 11 tons 12 cwt. 2 qrs. 17 lbs., 517s. 10s. 1d.; uranium, from ditto, 1 ton, 9s. 16s.

Of iron, 10,483,309 tons of ore were raised, and 3,636,377 tons of pig-iron produced, valued at 5,695,815s. for the ore, and pig-iron valued at 14,545,508s.

Of coal, the production was 66,645,450 tons, showing an increase over the previous year of 2,192,380 tons. The value at the pit's mouth has been calculated at 16,663,862s.

The market value of the metals enumerated above, as obtained from the furnace, have been calculated at the enormous sum of thirty-seven millions seven hundred and eighty-three thousand and twenty-one pounds sterling, for the produce of one year.

My Review has, however, more to do with mining for copper, lead, and tin than anything else, and in showing the results in the dividends of profits paid to shareholders in the last twelve months, the first column gives the amount of capital originally subscribed per share, and the second column the present market value. The amount of dividends paid in 1856 is also given, to indicate the increase or decrease in each particular mine.

## BRITISH MINES.

Name of Mine.	Amount paid.	Market value.	Dividend per share.	Total Dividends in 1857.	In 1856.	In 1857.	Dec.
Alfred Consols, £23½	£12	£2 9 0	—	£12544	£8709	£2340	—
Barnard Consols, 25½	6	1 3 6	—	4700	2500	2200	—
Botallack, 91½	175	23 0 0	—	5600	5800	—	200
Boscanaw, 20½	80	0 9 9	—	2100	2550	—	720
Brighton Consols, 4½	6	0 10 0	—	208	—	208	—
Bridgwater, 50	4	0 4 0	—	240	300	—	60
Calstock Consols, 5	3½	0 6 0	—	6000	—	512	—
Carn Brea, 15	12	2 5 0	—	4500	—	4000	—
Condrock, 20	50	0 10 0	—	2560	3540	—	1280
Condrock Moor, 8	40	0 12 0	—	633	—	633	—
Devon Gr. Con., 1	425	67 0 0	—	69608	59932	9216	—
Drake Walls, £1 19	1½	0 4 6	—	2880	1600	1280	—
Dolcoath, 257	300	36 0 0	—	6444	5101½	1845½	—
Dorset, 304½	150	0 10 0	—	2800	2800	—	—
Ding Dong, 32	20	0 5 0	—	512	7050	—	—
East Falmouth, 5	60	0 5 0	—	900	4200	5600	—
Eaton, 48	3	0 15 6	—	4417½	5180	—	112½
East Pool, 24½	150	22 10 0	—	2800	3200	—	400
Fowey Consols, 4	5	0 6 0	—	1482	3700	—	2223
Graham & Co., 109½	80	6 0 0	—	1458	—	1458	—
St. Aubyn, 100	140	7 10 0	—	892	3867½	—	2975½
Great Work, 100	15	0 10 0	—	8100	—	8100	—
Gr. S. Tolgus, 21½	15	0 10 0	—	512	—	512	—
Haroduff, 21½	80	0 0 0	—	1280	1280	—	—
Levant, 21½	80	0 0 0	—	8060	7600	1280	—
Mary Ann, 8	44	0 15 0	—	1280	1250	—	—
Mendip Hills, 3½	1½	0 5 0	—	1300	—	—	—
North Basset, 12	21 10	—	—	15300	26550	—	11550
Par Consols, 14	19	4 6 0	—	37520	18200	9320	—
Phoenix, 30	8	40 0 0	—	8000	11500	—	3500
Poole, 208	70	4 17 6	—	4480	3290	1595	—
Providence, 208	70	4 17 6	—	4480	3290	1595	—
Rosewarne, £1 12	25	3 10 0	—	1792	6912	—	5120
St. Day United, 2	1½	0 2 6	—	2500	—	2500	—
St. Ives Con., 80	150	20 0 0	—	1880	752	1128	—
Stridgill Con., 6	1½	0 2 6	—	1500	4500	—	3000
South France, 140	230	62 0 0	—	25792	26228	—	496
South Tamar, 21½	340	66 0 0	—	14338	12288	2050	—
South Tolgus, 16	110	11 0 0	—	2816	—	2816	—
Trevelyan, 2½	1	0 3 0	—	614	2457	—	1843
Trevelyan, 2½	1	0 3 0	—	614	2457	—	1843
W. Basset, 19	22	3 10 6	—	21150	23850	—	2700
West Caradon, 20	110	13 0 0	—	3328	—	3328	—
West Damsel, 10	80	6 0 0	—	1536	—	1536	—
W. Providence, 11½	11	0 0 0	—	1624	2516	—	1792
West Seton, 38½	300	46 0 0	—	18490	13500	4900	—
Wendron Con., 23½	34½	2 0 0	—	1024	—	1024	—
Wheal Baller, 5	150	18 0 0	—	3092	3123	—	10240
Wheal Baller, 5	150	18 0 0	—	3092	3123	—	10240
Wheal Clifford, 4½	200	17 0 0	—	4250	4000	250	—
Wheal Grylls, 4½	200	17 0 0	—	4250	4000	250	—
Wheal Jane, 3½	17	4 0 0	—	2048	—	2048	—
Wh. Kitty (Le.), 12	12	2 15 0	—	2816	2274	542	—
Wh. Kitty, 4½	4½	0 5 0	—	750	750	—	—
Wh. Margaret, 79	45	15 0 0	—	6720	3920	2800	—
Wheal Owles, 70	300	13 0 0	—	2475	2371	104	—
Wheal Seton, 107	150	9 9 6	—	1946	5329	—	336
Wheal Wrey, 1½	5½	0 9 6	—	1946	5329	—	336
Total dividends in 1857				£386,043 10s.			

## WELSH MINES.

Cwmystwith, 60	150	25 0 0	—	3200	—	—	—
East Daren, 33	100	18 0 0	—	5400	—	—	—
Leiborne, 25	120	18 0 0	—	7200	—	—	—
Est, 35	90	6 10 0	—	1700	—	11700	—
Rhosyddol, 11½	12	0 6 0	—	780	—	—	—
Vale of Towy, ½	½	0 0 0	—	500	2200	—	1700

## ISLE OF MAN.

Isle of Man, 25	42	4 10 0	—	11320	11200	280	—
Laxey, 100	1000	100 0 0	—	3000	—	—	—

## IRISH MINES.

Holyhead, 41	8½	0 5 0	—	500	1000	—	500
Gen. Min. Ass. of Ireland, 7	15	0 10 6	—	10500	21000	—	10500
Wicklow, 5	31	1 12 6	—	8125	2200	5005	—

## FOREIGN MINES.

Burra Barra, 5	0 0	—	—	12230	—	—	—
Cobre Copper, 1	0 0	—	—	13000	—	—	—
Gen. Min. Ass. of Ireland, 7	15	0 10 6	—	10500	21000	—	10500
Lima, 9	10 8	—	—	7500	—	—	—
Marquette, 1	0 1 0	—	—	5130	—	—	—

For the sake of comparison, I give, as usual, the dividends from profits paid on British mines since 1845:—

Year ending 1845, on 18 mines	£216,450 0 0
1846, on 28	168,838 0 0
1847, on 30	155,381 0 0
1848, on 22	129,024 0 0
1849, on 38	185,741 0 0
1850, on 42	213,570 0 0
1851, on 45	216,486 0 0
1852, on 50	231,267 0 0
1853, on 60	330,755 0 0
1854, on 52	317,976 0 0
1855, on 64	340,714 3 4
1856, on 65	383,418 8 8
1857, on 60	386,043 10 0

In this year's list, 60 mines have paid 386,043s. 10s., showing an increase over 1856 of 2625s. 1s. 4d.

The mines in the Dividend List of 1856, and not in that of the present year, were—South Tamar, which then paid 4500s., and afterwards became destroyed by the influx of the River Tamar; United Mines, 800s.; Tretoil, 1000s., never fairly made; Wheal Lovell, 430s.; West Darlington, 210s.; Carnyorth, 614s.; Tamar Consols, 1200s.; Sparrow Moor, 210s.; Hington Down, 3600s.; Wheal Porteus, 375s. Of these, it is hoped, Tamar Consols and Hington Down will soon pay again.

The mines in the Dividend List of this year, and not in that of 1856, are East Falmouth, which has paid 612s.; Budnick Consols, 208s.; St. Day United, 2500s. (first time of paying); Carn Brea, 6000s.; Herodfoot, 512s.; Wendron Consols, 1024s.; Craddock Moor, 632s. (first time); West Caradon, 3328s.; Wheal Grylls, 102s.; West Damsel, 1536s.; Calstock Consols, 512s.; Wheal Jane, 512s.

Devon Great Consols has again increased its dividends 9216s., but on referring to most of the other old dividend mines it will be found they have generally fallen off; but as these will be treated of in their regular order, they need not be further noticed in this place.

Among mines which had been dividend-paying, but did not pay in 1856, I stated in my last Review that West Caradon, South Tolgus, and Great South Tolgus would re-commence in this year, and they have each done so, paying in the aggregate 14,244s. Among progressive mines, I named three as likely to enter the Dividend List—Great Alfred, Grambler and St. Aubyn, and Porellis; the first and last have greatly disappointed expectation, but Grambler and St. Aubyn has paid 1458s., with every reasonable expectation of an increase this year. The progressive mines to enter the Dividend List this year will probably be East Basset, Wheal Edward, Copper Hill, North Rosekar, North Frances, Cwm Erfin, Great Badden, &c.

Great fluctuations have taken place in the value of shares. Bassets have fallen from 240 to 150; Rosewarne from 50 to 25; North Basset from 36 to 12; West Basset from 32 to 22. East Basset rose from 35 per 512s to 120, and then went to 92; Sortridge Consols rose from 1½ to 2, and now 1½; Herodfoot rose from 2½ to 8; Wheal Yny, 2 to 8½, and down to 7. South Caradon shares throughout the year have kept steady, at from 340 to 350s. Wheal Wrey dropped from 8 to 5. Devon Consols rose from 430 to 470, and then dropped to 420. Grenvilles have fluctuated constantly from 1½ to 2½; Great Alfreds dropped from 12½ to 4; Great South Tolgus rose from 14 to 17, and then down to 15 again; East Pool dropped from 310 to 150; Dolcoath rose from 210 to 330, and down again to 250; Cwm Erfin rose from 10s. to 6s. 10s.; Wheal Mary Ann rose from 42 to 50, and down to 45; Buller shares rose from 280 to 310; Copper Hill from 170 to 220; Botallack from 170 to 230. Alfred Consols rose from 18½ to 24, then dropped gradually to 11, rose again to 18, then in a few days down



ground, and a rich mine; so that in 1854 they made profits, and have to this time (three years) divided upwards of 70,000*l.* profit, and the mine for which they gave 700*l.*, with a trifling further outlay, rose to a market value of 200,000*l.* Of course, this is one of the prizes to a dozen blanks; but it is not an isolated case, and I mention it to show the effects of perseverance in a good district.

We are all naturally inclined to be too sanguine in mining and too remiss in calculating the costs of working a mine, and here again disappointment often occurs. I have gone into mines where the best opinions as well as prospects pointed to the "next call as the last," yet calls continued for years after! Who then shall calculate to a nicety? I have often heard capitalists say they would gladly embark 500*l.* or 1000*l.* in a mine if they could ensure not being called upon for more, and they have, therefore, advocated large subscribed capitals; but this would do away with the Cost-book System, which renders mines exempt from the Joint-Stock Acts. The Cost-book Principle allows money to be provided only as it is required, generally two-monthly; and although every shareholder is individually liable for debts so incurred, he can at any time rid himself of responsibility by paying up his proportion of debts and relinquishing his shares; and although it may be, and doubtless is, annoying to shareholders to be constantly dunned for calls, they are necessary evils in well conducted mines.

We often hear it remarked that many worthless schemes are advertised and launched on the market just for the sake of premiums, and by such means many parties are deceived, and become disgusted with mining operations. This is, doubtless, too true; and I refer to it just to say that parties embarking in such have only themselves to blame; as it is easy for anyone to test the truth of reports by getting an inspection made by a respectable and practical agent. Some persons, again, object to premiums at all, even on good concerns; but it appears to me that if a man who has spent half a life time in gaining mining experience, and whose time is money, devotes months, and sometimes years, to get a good sett, or if he is able, through his command of capital, to purchase an entire mine, he is as much entitled to a profit on his venture, if he invites others to join him in shares, as a merchant who, with his large capital, goes into the silk or any other wholesale market, and taking advantage of circumstances, secures a bargain, and, in retelling it out, does not sell a pound's worth at the rate he gave for the whole, or within, perhaps, 200 per cent. off! In a new mine, however, the premium asked should be in accordance with the prospects. In treating of the prospects of mines, a true report of to-day may be untrue to-morrow: such are the ever-changing phases of underground operations; and on this account many conscientious and good agents, who give true and faithful reports of mines when they inspect them, get oftentimes abused without deserving it. Perhaps (owing to no merit of my own), few men in London have been asked of late years to recommend mines more than I have been; and day after day I still get applications from all parts of England to name those likely to pay. To do this conscientiously neither trouble nor expense is spared in getting the best practical opinions, but they often err; and I know I sometimes get sadly blamed. While on the subject of agents, I would call their greater attention to "cross-cuts," for it is generally feared they are too much neglected, and many a branch driven upon whilst the main lode stands by its side undiscovered. The father of cross-cuts and of many miners, has within the last 10 years, made more rich mines than any other man in Cornwall. In 1850 Great South Tolgus was very poor, and the company determined to stop the works and sell the mine. Well, Capt. — bought it for a song, at night dreamt about it, and suddenly rousing the captain from his bed, told him they had been driving on the wrong lode, and ordered him then and there to get up and set two or three cross-cuts! This was in 1851, in 1855 the mine paid its first dividend, and is now one of the richest in the district!

Until a week ago, although the public press had been for months laying bare the grossest systems of fraud and deception in commercial and banking circles, it was our pride and boast that not one single case of mismanagement, or misappropriation of funds, had been found in connection with mining operations; and it is with extreme regret that we are compelled, just as we had, as we considered, completed our labours for the year, to refer to circumstances, which have only just transpired in relation to certain mines, and which form the general topic of conversation. The mines referred to have been under the sole management of one individual, and are now said to be heavily in debt; while the shareholders, taking that individual's word for it, supposed that ample funds were in hand. We cannot, being ignorant of all the facts, enter into details, but must remark that the mines, owing to the management, have never been on the mining market, and never dealt in. And it is much to be feared that a class of persons have been led into them—by what means it is not for us now to enquire—who were ignorant of mining matters entirely, and now will receive a lesson that will induce them to denounce mining altogether. How often have we reminded shareholders that, under the Cost-book System, it is their duty to audit all accounts periodically, and not to pass them until vouched and found correct. There should, also, be finance committees to every mine; and where these precautions have been systematically neglected, the blame rests upon the companies rather than upon mining; which, if properly conducted, is as safe, if not safer, than any other form of speculation.

#### DIVIDEND MINES.

[I regret to say that the particulars of the progress and statistical accounts of several mines, particularly in the progressive list, have not reached me this year, although in several instances promised. Some persons and managers, who are generally forward enough in sending flourishing statements when they want public attention called to their mines, are not always so free in giving reports if they must be of a gloomy character; and, although I do not wish to insinuate that they have been influenced by any such considerations, the public, perhaps, will draw their own inferences.]

**ALFRED CONSOLS**, this year, according to the Ticketing List, has sold 4595 tons of copper ore, realising 32,933*l.* 12*s.*, and has divided amongst the shareholders 12,514*l.*, showing an increase of 349*l.* over the profits of the previous year. Latterly, the dividends have fallen off, and would have declined still further but for the discovery in November of a lode in the 140 fathoms level, which improves the otherwise gloomy prospects for the future.

**BASSET** has returned 5740 tons of copper, realising 44,184*l.*, and divided 20,922*l.*, showing a falling off of 10,340*l.* in her profits. This mine, of late, has not been looking so well, but is generally expected to improve, there being a large quantity of unexplored ground. The south part of the mine, which for some years has been worked at a loss of 100*l.* a month, has been separated, and in future will be worked as South Basset. This will relieve the cost of the old mine, and discoveries are hoped for to increase the dividends.

**BULLER** has returned 6590 tons, yielding 34,592*l.* 11*s.*, and divided 10,215*l.*, or 12,794*l.* less than last year. Latterly the prospects have improved; the lode in the 50, east of Kistler's shaft, which is about 400 fms. from the eastern boundary, is improved in character to 2½ ft. wide, of black and yellow ore from 1 to 1½ tons per fm. In the 60 the lode was only 9 feet east of Kistler's, the lode at the same time produced from 2 to 2½ tons per fathom. A cross-cut was driven north on the cross-course in the 70, and intersected a new lode, from 18 in. to 2 feet wide, producing from 2 to 2½ tons per fm. In the 50 a cross-cut was driven north in the cross-course, and another lode intersected.

**BEDFORD UNITED** has done better this year than the last, the returns of copper ore having been 2514 tons, yielding 15,120*l.* 10*s.*, and profits divided 4700*l.*, against 2500*l.* in 1856. The average number of persons employed is 85. During the year the different levels have been driven 309 fms.; shaft and winzes sunk 71 fms. The mine is in a good state of working, with every probability of its continuing to pay good dividends.

**BOSCHAN** is a tin mine, which has paid 2160*l.* in dividends, against 2380*l.* the previous year. Future profits must depend on the price of tin. The prospects of the mine are considered very favourable.

**BOTALACK** has divided a profit this year of 5600*l.*, or 28*l.* per share. The returns are principally tin; and the purser not having taken the slightest notice of my application for the quantity sold, I am unable to give it, and may add that it is extremely difficult even for shareholders to get information about the mine or its management. This is much to be regretted, as, in consequence, it never holds a proper position in the market. The copper sold has been 985 tons, realising 11,426*l.* 10*s.* 6*d.* Since 1850 the dividends paid have been 42,050*l.*

**CALSTOCK CONSOLS**.—Since the beginning of the year the engine has been completed, and the shaft sunk to 12 fms. under adit, and is now about 3 fathoms under that level, nearly 70 fms. from surface. The 12 eastward has been extended about 13 fathoms, 10 fms. of that driving through the course of ore found in sinking a winze in bottom of the adit. The lode in the 10 fms. driving has averaged 7 tons of good quality ore per fm., and the end is looking equally good. The lode in the adit going east is also improved, having a good leader of ore in the end. The agents speak highly of the appearance and prospects, and altogether the mine is decidedly improved, and bids fair to be a valuable property. In October last a parcel of ore, from 90 to 100 tons, was sampled, and another of 100 tons is being got ready for sale; this will leave a good profit. The sales for the year amount to 1128*l.* 4*s.* 3*d.* At the meeting held in Oct. the accounts showed a balance in favour of mine of 587*l.* 6*s.*; this, with the Oct. ore for sale, after providing for the cost of that month, as well as Sept., in the estimated receipts and expenditure, left a considerable balance in hand, after making provision for a dividend of 2*l.* 6*s.* per share.

**CARR BREA** did not pay in 1856, but this year has paid three dividends (the last being the 97th by the mine) of 2*l.* each, amounting to 6000*l.* The mine being one of the oldest in the county, the profits mainly depend upon the standard. Altogether, the profits divided have been 239,500*l.*

\* The private and confidential agent in Cornwall of Messrs. Watson and Cuell, 1, St. Michael's-alley, London, will, having their permission to do so, inspect and report upon any mine, new or old, for a fee of 2*l.* 2*s.*, and his travelling expenses. Parties can thus obtain the best practical opinion before parting with their money.

**COLLACOMBE** is a young and promising mine, in the neighbourhood of Devon Great Consols, which entered the Dividend List this year by paying 4500*l.*, or 2*l.* 5*s.* per share. The returns of copper ore have been 1500 tons, realising 10,340*l.* 4*s.* 4*d.* The samplings for the future will be every two months, which will effect a saving in the cost. A change has taken place in the prospects of this mine for the better, and a still greater improvement is expected in the various levels now being driven.

**CONDURROW** has sold 1677 tons 18 cwt. 2 qrs. of copper ore, realising 9741*l.* 8*s.*; black tin, 118 tons 10 cwt. 1 qr. 17 lbs., 908*l.* 12*s.*; arsenic, 12 tons, 21*l.*; total for the year, 18,587*l.*; and has paid in dividends 2500*l.*, or 1*l.* per share, against 191*l.* per share, or 38*l.* 4*s.* 4*d.* in 1856. The mine, upon the whole, is said not to be looking quite so well as it did; but with the reduction in labour and materials, it is expected a small profit will be made.

**CRADDOCK MOOR** has sold 994½ tons of copper this year, for 9931*l.*, against 624 tons for 5934*l.* in 1856. Dividends from profits have been commenced, and likely to be continued every two months, as nearly all the ends are productive, and opening good tribute ground. In West Caradon, adjoining, the ore is found 100 fms. deeper than the present bottom of Craddock Moor, making the prospects of this mine very good.

**CWMTYTH WITH LEAD MINE**, Cardigan, is divided into 128 shares, on which 60*l.* a share has been paid, and is under the management of Messrs. J. Taylor and Sons. There are several lodes and branches within a few fathoms, which cross and form interstices, traversed by slides or cross joints. The returns at this time are 101,451*l.* 2*s.* 2*d.* for a wind which formerly only marked pheasants. In addition to other lode at a high hill, and not yet from levels of any depth below surface. The profit for the last twelve months has been about 3300*l.*. The present dividend is 5*l.* a share every two months, with a prospect of an increase by way of bonus.

The **DEVONSHIRE GREAT CONSOLIDATED MINES**, or the "Great Wonder" of mining, again this year stand at the head of the list, and have increased their dividends 9216*l.*. The progress of these mines is like a romance. Some years ago an old miner sunk a pit in one of the Duke of Bedford's woods, and after labouring for a few fathoms in depth he gave it up as a bad job. Some say his "blasting" frightened the ducks and pheasants, and that he was compelled to abandon his pit. Be that as it may; in 1843 a descendant of the old miner took a fancy to the hole, and called the attention of Messrs. John and William Alexander Thomas, two eminent and influential members of the Stock Exchange, to it. These gentlemen, who were at the time largely engaged in mining operations, obtained a lease of the ground from the present Duke of Bedford in 1844, and undertook to spend 30,000*l.* upon it; this, however, was not necessary, for in sinking the old man's pit a few fathoms deeper they came upon the richest deposit of copper ore ever discovered in England, and in one year the property rose to the value of 800,000*l.*. And upon the small outlay of 1031*l.*, the company have received in dividends 609,280*l.* since 1850, and have still the prospect of 50,000*l.* a year for many years to come. Of the produce of the mine the Duke of Bedford receives 1-12th the royalty or rent, and in this way, since 1845, he has received 101,451*l.* 2*s.* 2*d.* for a wind which formerly only marked pheasants. In addition to this, the Duke has to receive 20,000*l.* for an extension of 31 years to the lease—a rather heavy tax, in addition to the royalty, upon those who have made the property what it is; for, in taking a comprehensive view of these extraordinary mines, and not looking at them simply as making the fortunes of many of the shareholders, or, as a lucky speculation, we must remember that the company employ about 1200 persons on the works, and for labour, poor's rates, taxes, merchandise, &c., spend upwards of 60,000*l.* a year in the neighbourhood of Tavistock alone. The ore sold during the year has amounted to 7,740 tons, realising 140,403*l.* 10*s.* 6*d.*; which is to be added carriage to quays 6113*l.* 3*s.* 6*d.*, making together 146,516*l.* 14*s.*; and dividends declared 67*l.* per share, or 68,608*l.*, against 59,392*l.* last year. The ore sold in 1856 realised 155,871*l.* 1*s.* 6*d.*, and the difference may be accounted for by the smaller samplings made in the months of July and November, which were each about 600 tons less than the usual quantity brought forward monthly. These reduced samplings were caused by the low standard of copper which prevailed about the middle of the year, and induced the directors to think it undesirable to sacrifice the property to the temporary diminishing of quantity. This division of quantity, which had the desired effect of causing an advance in the standard in July, which rose successively for seven weeks, but has since then gone back to about what it was in July, and it remains to be seen whether, under the present state of the money market, and of mercantile affairs generally, the withholding the usual monthly supplies of ore will be productive of ultimate good. Since our last year's Review, the directors have been negotiating with the lessor for a renewal of the lease of the sett for 29 years from 25th March last, with an addition of ground eastward for about 1000 fms. on the south side of the mine, together with the late extension of the railway to Morwellham Quay, on the Tamar, for the more economical conveyance of the ore to the place of shipment, and of the materials and stores back to the mine. For these concessions a fine of 20,000*l.* was demanded, which the directors agreed to, and the company may now be considered in possession of the new lease, &c., 10,000*l.* having been paid on account of the fine, and operations in the new ground eastward already commenced, with every prospect of success, there being at the present time in the 74 fm. level, east of Thomas's shaft, at Wheal Emma, and within about 45 fms. of the new ground, a lode worth 10 tons of ore per fm., whilst in the back of the 74 the lode is also a fine course of ore, worth for 10 fms. 15 tons of ore per fm. The mines are under the direction of the Messrs. Thomas, in London, with Mr. A. Allen as the able secretary. In Devonshire, the manager is Mr. Thomas Morris.

**DING DONG** has this year paid 672*l.* profit, against 7056*l.* in the previous year. The mine is the oldest for tin in Cornwall, and seriously affected by the fall in the price of that metal; besides which new machinery has been erected; and although in March the dividend was declared, a call was made in November.

**DOLGOATH** has sold, this year, tin, copper, and arsenic ores to the value of 32,498*l.* 3*s.* 3*d.*, and divided 38*l.* per share, or 6444*l.*. The present price of tin—60*l.*—is 12*l.* per ton less than the average of the past five years; and, considering that Dolgoath returns 50 tons per month, a difference in the profits of 600*l.* a month is caused by this alone. Taking, however, tin at its present price of 60*l.*, it is calculated that when the mine is at the late rate of 75 tons of ore per month, it has been charged up (amounting in all to 3000*l.*), which is now nearly, if not quite, done; the mine will be in a position to pay dividends in future of 4*l.* per share every two months. Of course any rise in tin will also increase the profits. The mine is looking well, and the deepest part now 254 fathoms.

**EAST DAREN SILVER-LEAD MINE** is situated in the parish of Llanbarnaf, in the county of Cardigan, and under the management of Messrs. J. Taylor and Sons. The grant includes the Old Cwmymlog, once the property of Sir Hugh Myddelton. There is on the mine a steam-engine for pumping, when the water-wheel is stopped by drought or frost, and also other necessary machinery for drawing, crushing, &c. The deepest level is the 80, and the returns about 85 tons of ore per month, with prospects of an increase as the works are extended. When the 41 is extended further eastward it will unbutton and drain the Old Cwmymlog Mine for about 500 fms. in length. The present dividend is 3*l.* a share every two months, but the profits during the year have exceeded this amount. The usual produce of the different levels is from 1½ to 2 tons of rich lead ore per fm.

**EAST FAIRMOUTH** is a lead mine, near Penhaldarva; commenced a year or two ago, and entered the Dividend List for the first time in July last year, when it paid 2*l.* 6*d.* per share, and the same amount in October. Of the future prospects I am not able to speak.

**EAST POOL** has sold 2535 tons of copper, realising 13,607*l.* 17*s.* 6*d.*, less by 3000*l.* than sold in 1856. The dividends this year have been 2800*l.*, or 22*l.* 10*s.* per share, against 3200*l.* in 1856. This time last year the mine increased its dividend from 2*l.* 10*s.* to 7*l.* 10*s.* per share, and for four months this year they were kept up at that amount; latterly the returns have considerably fallen off, being little more than half what they were in February, and the dividends also declined to 2*l.* 10*s.* per share bi-monthly. The mine commenced dividends in 1835, and has paid upon an original outlay of less than 1000*l.*, 39,956*l.*. In a good district, it is to be hoped that some improvement may enable the dividends to go on, if they are not increased.

**EXMOUTH** has returned during the twelve months 1297 tons 4 cwt. of lead ore, realising 18,202*l.* 15*s.* 1*d.*, and has paid in dividends 4117*l.* 10*s.*. In the early part of the year the mine was flooded in the lower levels, through an accident, but is now in perfect order again. The shaft is down 60 fms. under the adit in the 35, and the 40 and 50 fms. level as the best part of the mine. The returns are expected to keep up to 150 tons per month.

**POWELL CONSOLS** has sold 5126 tons of copper ore, realising the sum of 36,969*l.* 3*s.* 7*d.*, and divided 1832*l.* profit, against 3705*l.* in 1856. Formerly the mine was amongst the richest in Cornwall, and has made enormous returns, as well as divided many hundreds of thousands of profit. With a better standard we may hope to see dividends again in 1858.

**GREAT SOUTH TOLGUS**.—In reviewing this mine last year, I stated that it would in 1857 double its returns, and commence dividends in April. These expectations were fully realised. The returns in 1856 yielded 5247*l.* 10*s.*; this year the copper sold has been 2994 tons 10 cwt., realising 26,888*l.* 0*s.* 8*d.*. The first dividend was paid in April, and during the year 8100*l.*, or 1½*l.* per share, have been paid, showing that the profits have exceeded the returns of 1856 by 3000*l.*, and in addition the mine has been working for machinery. The new engine erected of 20 horse power, and from its central position, will drain the whole sett, which is a very extensive one. The reserves of ore in the mine are good, and, as the ground is opened at a cheap rate, the prospects of good dividends for the future are excellent. Captain Pope, of Basset, who inspected this mine on Dec. 15, added—"I must say, to the extent opened, the largest quantity of ore is discovered that I have seen in any mine for several years."

**GRANBLER AND ST. AUBYN** has sold during the year 309 tons, yielding 6740*l.* 11*s.*, and has divided 1458*l.*. This is one of the progressive mines I stated last year would pay this year. Within the last month or two the mine has much improved. The lode at Williams's shaft is worth 30*l.* per fm., sinking below the 24; the 24, east of this shaft, is worth 30*l.* per fm.; the 36 east, going towards Williams's, 15*l.* to 18*l.* per fm. As the 24 has gone over a long course of rich ore ground, the 36 now reaching it, and becoming also rich, is a most favourable feature.

**HERDSFOOT LEAD MINE** sold this year 512 tons, realising 8433*l.* 10*s.* 2*d.*, and commenced dividends again in Sept., when 512*l.* were divided. During the year the mine has been opening out well, making regular returns of 40 tons per month, and increasing the reserves. At present the mine is in a better position than it has been for many years. The returns of ore will be increased, and if lead keeps at its present price regular dividends, larger in amount than the last, will be paid.

**LISBURN LEAD MINES** are in Cardigan, and under the management of Messrs. J. Taylor and Sons. The returns are about 200 tons of ore per month. The mines in this sett are—Frongoch, the most productive and profitable, which is 78 fms. deep; East Loggias; and Glograch, in which a very good discovery has lately been made in the 78, worth of 2 tons of ore per fm. This concern has, during the last 20 years, made upwards of 120,000*l.* profit, and the prospects for the future are very good. The dividend is 3*l.* per share every two months, but the profits during the year have exceeded this amount.

**MARY ANN** has sold 1597 tons 4 cwt. 2 qrs. of rich silver-lead ore for 35,863*l.* 12*s.* 5*d.*, and divided 8960*l.*, or 8*l.* 15*s.* per share profit, the cost of working being close upon 2000*l.* per month. Pollard's shaft is down to the 150 fm. level, the deepest point. In the 140 the lode looks well, and favourable for the 150. Clyme's shaft is down to the 95 fm. level. The stopes and pitches throughout the mine are producing the same as usual, and it is to be hoped that the dividends will be kept up to 3*l.* per share.

**MENDIP HILLS** has divided this year 1250*l.*, the same as in 1856. The principal operations of the company are smelting slag, or refuse lead, found in the Mendip Hills, Somersetshire.

**MINERA LEAD MINES** are some of the most extensive in North Wales, and have yielded immense quantities of ore for ages past. They are situated not far from the town of Wrexham, at the base of a bold mountain of limestone, and the main vein is supposed to form a fault, or division, between the mountain limestone, on the south, and the coal measures, which abut upon or overlap this limestone on the north side. The veins run back north-westward into the limestone, which is full

of subterranean caverns or swallow. These mines were commenced to be reopened by the present company about seven or eight years ago, and are now very productive. In a former working the produce was about 5000 tons per annum. This concern is now divided into 1800 shares, of 25*l.* each, under the management of Mr. J. Taylor, junr. The present produce is about 250 tons of lead ore per month, and 100 tons of blende, and the profit about 20,000*l.* a year. The produce will be much increased in the course of another year or two, when the mines are fully open.

**NORTH BASSET** has sold 3906 tons of copper, realising 23,157*l.* 8*s.*, and tin 2501*l.* 14*s.* 9*d.* against 23,051*l.* 10*s.* 4*d.* in 1856, and the dividends this year have been 15,300*l.*, or 2*l.* 11*s.* per share, against 25,590*l.* last year. Early in the year the mine made large returns, which suddenly fell off, and it then appeared the reserves had been considerably over-estimated by the agent, and great dissatisfaction arose among the shareholders. The mine is situated in the richest district in the world, and has so many points to come off, that we hope another 12 months may put the mine into a better position.

**PAR CONSOLS** has sold this year 4197 tons of copper ore, realising the sum of 44,519*l.* 18*s.* 6*d.*, and 263 tons of tin for 21,311*l.* 3*s.* 1*d.*. In addition to this 120 tons of tin have been stocked, owing to the low price, and there is some talk of the company smelting their own tin ore. The dividends have been 27,329*l.* against 18,200*l.* in 1856. The mine is a very rich one, but as a large proportion of its returns is from tin, the amount of future dividends will in a great measure depend upon the price of that metal.

**PERENIX** has sold 6170 tons of copper ore, realising 30,022*l.* 2*s.* 6*d.*, and divided 8000*l.*, against 11,000*l.* in 1856. The mine is managed in Manchester, and no information as to its state and prospects is ever given to the public. The general impression, however, is that the mine is not looking so well as it did.

**PROVIDENCE MINES** (tin) have divided this year 10,800*l.*, or 18*l.* per share, precisely the same as divided in 1856. The mine is the richest for tin in Cornwall, and, although their profits must be affected by the low price of that metal, they will not be so to the great extent of some other mines. The quantity of ore sold by this mine altogether has realised—tin, 158,057*l.* 11*s.* 11*d.*; copper, 37,945*l.* 0*s.* 2*d.*; arsenic, 20*l.* 4*s.* 4*d.*. Calls originally paid-up, 11,509*l.* 5*s.* 1*d.*; credits divided amongst shareholders, 39,325*l.*

**ROSEWARNE** during the year has been gloomy enough, considering the splendid prospects in 1855-56, but is now looking better, and as the levels get up to the western ground the returns may increase, and we hope to see dividends resumed again. This year the returns have been 1514 tons of copper, realising 11,941*l.* 15*s.* 6*d.*, and the dividends, the last having been paid in June, 1792*l.*, or 3*l.* 10*s.* per share. The mine is in its infancy, and in 1855 divided 7986*l.*; and in 1856, 6912*l.*

**SORTIDGE CONSOLS**, in July, paid a dividend of 1600*l.*, but has since been barely paying its way. A discovery, or an improvement, in the lode, which may reasonably be expected, would make a paying mine of it again. In 1856 the returns yielded 15,557*l.* 14*s.*, and dividends 4500*l.*. This year the returns have been 923 tons 994*l.* 7*s.*, showing a great falling off.

**SOUTH CARADON** returned copper ore 4538 tons, yielding 46,893*l.* 14*s.* 6*d.*, and has divided 14,338*l.*, or 5*l.* 6*s.* per share, being an increase over the year 1856 of 2050*l.*. During the year the shares have not varied more than 10*l.*. The dividends have been kept at 8*l.* per share every two months, and, when profits admitted of it, bonuses of 2*l.* per share given, the latter having happened four times—in January, March, May, and November. The mine is looking fair to keep up its dividends. This mine first paid in 1838, and upon a trifling outlay has divided 127,168*l.* profit.

**SOUTH TOLGUS** has returned 1975 tons of copper ore for 17,777*l.* 5*s.*, and divided 2816*l.*, the last dividend being paid in July. In 1856 no dividends were paid. The mine is under Messrs. Taylor's management. Mitchell's engine shaft is sinking being sunk below the 110 on the course of the lode, which in the 110 and 100 produces 3 tons per fm., and improving. In many of the other levels and stopes there are good courses of ore, and in a few months the mine will resume dividends.

**SOUTH WHEAL FRANCES** has returned this year 5773 tons of copper ore, realising 42,488*l.* 5*s.* 10*d.*, and tin yielding 995*l.* 9*s.* 11*d.*. The dividends paid have been 32*l.* per share 25,792*l.*, or 46*l.* less than last year. The mine paid its first dividend on Oct. 31, 1846, and in 11 years has paid the shareholders, upon an original outlay of 18*l.* 9*s.* 9*d.* per share, 136,586*l.*, or 27*l.* 7*s.* 6*d.* per share. The old mine is not looking so well as it did formerly; but during the year a discovery was made west of Marriot's cross-course, where the lodes continue rich, and are opening out a new mine.

**ST. DAY UNITED MINES** have sold 1362 tons of copper, for 8640*l.* 14*s.* 6*d.*. The tin returns not received. The dividends (the first paid by the company) have been 2500*l.*, or 2*l.* 6*d.* per share. The future prospects of the mine will depend in a great measure upon the price of metals, and the effects of the water from St. Consols.

**ST. IVES CONSOLS** has, in 1857, sold 209½ tons tin for 14,566*l.* 12*s.* 10*d.*, and has paid profits of 20*l.* per share, or 1800*l.*. The mine is looking well, and with a fair price for tin, might pay good dividends; but it is feared, with present prices, much profit will not be made.

**TINCROFT** has divided this year 3000*l.*, against 4500*l.* in 1856. The copper returns have been 2374 tons, realising 11,537*l.* 10*s.* 6*d.*. An improvement has lately taken place in the 173, which is considered important.

**TRELAUNY** has sold this year 1201 tons 14 cwt. of silver-lead ore for 25,824*l.* 3*s.* 8*d.*, and 80 tons of best ore for sale on the 26th. Also 10 tons 13 cwt. of copper at 15*l.* 13*s.*—25*l.* 6*s.* 8*d.*, and has divided in profit 2860*l.*, or 2*l.* 15*s.* per share. The average produce of the lead was—best parcels, 81 per cent. for lead and 40 per cent. of silver per ton of ore. The inferior parcels—average produce, 34½ per cent.; silver, 20 per cent. of ore. The mine generally is looking well, and a winze sinking 3 fms. south of Smith's shaft, now down 3 or 4 fms., with a good lode, which will open out, if it hold down, a considerable quantity of ore ground between that level and the 142, where the lode has just been cut rich. Much better dividends for the year 1858 may be confidently expected.

**UNITED MINES** has sold this year 9175 tons of copper ore, realising 49,333*l.* 9*s.* 6*d.*, but has not paid any dividends, as expected, the loss on the Consolidated Mines, a part of which had been purchased by the United, having swallowed up all the profits. At this last meeting 1715*l.* was paid on account of Consols loss, whilst the profit on the two months was only 35*l.* 7*s.* 11*d.*. At this meeting it was stated, and which is of great importance, that there was no increase of water from the stoppage of Consols.

**VALS OF TOWY (Wales)** has sold 661*l.* 13*s.* of lead, for 8682*l.* 6*s.* 7*d.*, and divided 500*l.*. Within the last month an improvement has taken place in the mine, and it is expected the returns will be increased.

**WEST BASSET** has sold ore to the value of 46,646*l.* 6*s.* 7*d.* during the year, and divided 21,150*l.*, or 2700*l.* less than in 1856. The prospects of this mine are good, and such as to warrant the expectation of 500 to 600 tons per month. On the old engine lode was a new shaft, called Percy's, has been sunk perpendicularly from surface to the 60, where it met with the lode, and then was continued on its course to the 75. The 40 fm. level is extended west 40 fms.; in places the lode is 3 to 4 ft. wide. The 50 is extended west a considerable distance, and for 40 or 50 fms. in length the lode was very productive, in some places yielding from 4 to 5 tons per fm. In the 60 the lode was 5 fms. below the 50 level, and the lode crossed it, dipping towards the engine lode, 18 in. wide, producing good ore; and in the 60 these lodes united, and formed a large one, producing in places 4 or 5 tons per fm. In the 75 the end was driven on with all dispatch, in order to get under the shaft described, without taking down any



**WHEAL WRAY** has sold 836 tons 20 cwt. 3 qrs. of lead ore, realising 15,332s. 2s. 1d., and divided 5329s. 12s. in 1856, a great falling off, considering the prospects of the mine 13 months ago. The ground in the bottom level is very hard, 187 ft. per fm. being paid for driving, and it is hoped that it will improve. The mine is young, and since 1835 has sold lead to the value of 49,217s. 4s. 7d. The lode dips towards Ludcott, and the Ludcott ore, in the same way, dips towards North Trelawny.

**THE WICKLOW COPPER MINES** have divided this year 17, 12s. 6d. per share, or 8125s. The mines, both for copper and sulphur, were never in a more prosperous condition, and it is fully anticipated that large dividends will be paid in 1858.

#### PROGRESSIVE MINES.

**ANGARRACK CONSOLS.**—A 42-inch engine is in course of erection; the shaft has been holed to the adit, and sinking will be commenced below it. The prospects are considered encouraging.

**BALLYMONEEN** (county of Wicklow) was commenced about four years ago, by bringing up a deep adit from the side of the mountain, in order to cut the lodes of the Wicklow copper and copper district, and also to unwater some old workings by a former company. That has been effected, and an engine shaft sunk to the adit, and 15 fathoms below it, making about 35 fathoms in all. At the adit level the lodes were found large and productive, and particularly the great sulphur lode (70 feet wide), which contained a large quantity of iron pyrites; but at this level a small quantity of it only was rich enough to meet the requirements of the sulphuric acid manufacturers; and the lodes, having the management of the mine, it was necessary to find the ore more concentrated and solid. Recently, the 15 fm. level cross-cut north has intersected the lode, which is found richer in the quality of the ore than at the adit; and in opening east and west on its course it is found continuous, abundant, and valuable. During 1856, the sales of sulphur ore will be constant and regular; and the company having erected an excellent engine for pumping and winding, they are in a position to carry on the mine with spirit and efficiency.

**BALMOON.**—Nothing rich has been discovered here this year. About six months ago a shoot of tin was discovered going north from the main lode; and as the tin contains carbons, many of which have been very productive, it was expected this would have made a rich deposit, and on that supposition shares suddenly rose to 61. each, but soon dropped, the lode not proving rich. A good chance still exists in cutting Beeth Consols lode. The shaft is in unsettled ground, but getting into better strata. The carbons on flat-rod part is also being well tried, as there are several good objects there, and a prize may yet be found.

**BASSETT CONSOLS.** in Illogan, adjoins Tywarthaile, and has been put to work lately, with excellent prospects. The adit level is 40 fms. from surface, and is driven a considerable distance on a lead lode passing through several copper lodes, on which nothing has yet been done in this mine; and there are 100 fms. of unexplored ground southward, traversed by several lodes. In driving south in the 30, on the lead lode, a new lode was intersected from 2 to 3 ft. wide, containing branches of lead, and a leader of copper ore of good quality, 4 in. wide; this lode will soon be intersected in the 40 or deep adit. The copper lodes run east and west, and underlie north 3 feet in a fathom, traversing a channel of argillaceous slate; and in driving upon them 30 or 40 fms. west of the lead lode it is expected the great country cross-course will be met with, and against it parallel lodes have been found productive. Wheal Sparrow has been secured by the present company, and as soon as the water is drawn out of Tywarthaile this part of the property will be drained to a good depth, and large quantities of ore are expected to be raised here. Altogether the mine is a fair speculation, and can be proved cheaply.

**BELL AND LANARH UNITED.** to the east of Penstruthal, which sett they join. The principal object is a flat-rod shaft sinking on the old Penstruthal lode, and in the same dip of the hill where such enormous quantities of ore were raised. The shaft is now down 15 fms. below the adit of 40 fms., and there is a fine masterly lode, containing some very rich black and yellow ore. It is intended to drive a 30 fathom level, about which there are very great expectations.

**BERRIOW CONSOLS.**—During the summer and autumn, the sinking the shaft was impeded by the great falling off of the water to work the wheel, in consequence of the unusual drought, and the men were employed in bringing up another stream, which is likely to be valuable for future operations, as well as remedying the present deficiency. The shaft is now in course of sinking again under the 30, and this level east is pushed on; the lode in it and in the shaft averages 3 feet wide, producing peach, spar, mundle, fluor-spar, and stones of ore. The mine is considered one of the best young speculations of the eastern district.

**BODCOL (Wales)** is down 10 fms. below the adit level. The 10 is extended west under the valley about 30 fms., on a large lode, composed of spar, carbonate of lime, and lead, and is of sufficient consequence to induce the adventurers without delay to sink the shaft to a lower level; and reasonable expectations are formed as to the productiveness of this lode at the 20. There is a large 40-ft. wheel erected, 5 ft. 3 in. breast, with a large stream of water at all seasons, and is of ample power to sink the mine to the 30. The lead-stuff already raised will not be dressed there a crusher is put up. For the present, the mine is considered a good speculation.

**BOILING WELL (Hayle)** has during the year sampled upwards of 8500l. worth of ore; no call has been made, but a considerable amount of liabilities have been cleared off, leaving a balance in favour of the adventurers. A new sett near the eastern boundary has been obtained, and it is proposed putting up another pumping-engine in the eastern ground, which will enable them to sink the present sumpt to the 130 fm. level, now down only to the 60. The eastern ground is turning out upwards of 15 tons of rich silver-lead ore per month.

**BOSCUEN** has been selling good quantities of tin; Sept. and October, 33 tons 19 cwt., bringing 4112s. 6s. 1d., and leaving a profit to end of August of 411s. 13s. 9d. The bottom of the 70 fm. level, at Anna Maria shaft, is worth 18s. per fm. The north lodes, and other parts, are looking promising.

**BOTTLE HILL.**—This mine resumed working about October last year, on a small scale, principally on tribute, and has since sold 26 tons 17 cwt. 3 qrs. 15 lbs. of tin for 2030s. 3s. 7d.; and on the 30 fms. level are now from 10 to 15 tons being prepared for market. The stamping machinery (driven by water) is being increased preparatory to an extension of operations, not only on the present plan of working, but in exploring some of the parallel lodes in the sett, to which cross-cuts have been extended, and can be wrought to the depth of the adit, 60 fathoms, and the water-power would enable these lodes to be seen deeper.

**CALSTOCK UNITED** has sold small parcels of tin, copper, and arsenic—that sold from August to November realising 1107s. 15s. 11d. An engine, stamps, &c., are in course of erection. Altogether upwards of 20,000l. has been expended, and in 1851 a dividend of 1000s. was declared, but not from profits. The mine is now under totally different management, and it is hoped that the shareholders will ultimately be rewarded.

**CALYADNACK** is in Wendron, and a very promising tin mine. The shaft is now sinking below the 60, with levels extended and winzes opened. The mine is reported equal to 6 or 7 tons of black tin a month, which, at a fair price, would more than meet the current cost. A cross-cut is being driven in the 30, to intersect some lodes north, one of which is now within a fathom or two. Black tin sold, 47 tons, for 3362s.

**CAMBORNE CONSOLS** has sold 182 tons 14 cwt. of copper for 15017s. 0s. 7d., and has not progressed so far as was expected. The 50 is being driven east of Gon's cross-cut, lode small. The 20, west of Tindall's, contains stones of ore. The pitches in back of the 20 and the 10 are turning out pretty well.

**CARN VIVIAN** is said to be poor.

**CARMARTHEN UNITED MINES** (near Newcastle Emllyn).—The engine-shaft has been sunk 7 fms. below the adit of 9 fms., and about 6 tons of good lead ore raised. Operations commenced on Feb. 9, and on the same day in 1858 the first sampling is to be made. A 34-feet wheel is to go to work this month, when the manager hopes to raise sufficient lead to meet the costs. Altogether, about 1000s. has been expended.

**CASTELL** is a lead and blende mine, in Cardiganshire, of promise, and registered under the Limited Liability Act, in 11 shares, 13s. 6d. expended. The principal operations this year have been erecting wheel and crusher, making lead and water-courses, and preparing the blende for market, the first parcel (25 tons) having been sold in Nov., at 34s. 15s. per ton. It is as a lead mine, however, that it must ultimately be regarded, the richest lead mines in the district having had blende in the backs of the lodes, in the same way as Castell, and until courses of lead are reached the blende may help to pay the cost of working. The cost is about 50s. per month, so that about 15 tons of blende would meet it; but more extended operations will be necessary to prove the mine for lead. The general appearance of the lode, which is 30 feet wide, are such as to lead to the expectation that it will produce a large quantity of lead and blende. About 160 fms. east of the blende workings, a shaft has been sunk 5 or 6 fms. from surface, on the course of the lode, which is also very large, and impregnated with copper ore, lead ore, and blende, of an encouraging appearance.

**CERN CWM BRYNNO LEAD MINE** is under the management of Messrs. John Taylor and Sons; it is a promising mine, and now making some profit, which it is expected will be increased before long. The lode has just been cut in the 80 fm. level, and as there appears to be no jack or blende in it, it is hoped that it will prove free from that mineral, which so much deteriorated the produce of the lode in the level above. The produce of the last twelve months has been about 400 tons of lead ore, value about 6700s.

**CLIFAN AND WENTWORTH** has sold this year copper ore to the value of 2873s. 1s. 3d. The mine has been very extensively laid open, and was commenced by the present company from the surface, and consequently considerable time and outlay of capital have been required to develop it. The most important points now in progress are driving cross-cuts north and south of the engine-shaft, 80 fms. below the adit level, to intersect the several lodes (six in number) seen above. The Wentworth lode, now being driven in the 70, has greatly improved of late, being 4 feet wide, yielding good work in gray and yellow copper ore, and is presenting all those favorable indications generally met with in rich mines, and the forerunner of great deposits of ore; in about a week or so this lode will be seen in the 80 fm. level. By a little further perseverance this company stands the fairest chance of being well rewarded for their patience and outlay.

**COOK'S KITCHEN** has sold tin to the value, this year, of 7932s. 15s. 5d.; copper ore, 1994s. 15s. 6d. Adjoining Dolcoath this mine has excellent prospects, though its depth, and the low price of tin, must affect its returns just now.

**CUFED.**—The north engine-shaft is down to the 54 fm. level, with levels extended east and west. In the adit the lode was remarkable for its beautiful gosean, and below it occasional small bunches of rich ore have been met with; it is hoped another level in depth will meet with a good improvement in the lode.

**CWM ERFIN SILVER-LEAD MINE** is situated in the parish of Llanbarnard, in Cardiganshire. It is divided into 1600 shares, on which 71. 10s. a share has been paid, and is under the management of Messrs. John Taylor and Sons. During the last year, a more powerful water-wheel has been erected, and larger pit-work fixed, so that the mine is now kept effectively clear of water. The means now provided will drain the mine 30 or 40 fms. deeper, if found necessary. The present bottom level is the 69, but some fathoms have been sunk towards an 80. About three months since, a south part of the lode was discovered in the 45 fm. level, worth about 1½ ton of lead ore per fm., which still continues. The same part of the lode has been discovered by a cross-cut from the 32, and produces about 1 ton of lead ore per fm. The 57 and 69 fm. levels will be brought forward as fast as possible, to see if the ore ground holds down. The present returns are about 30 tons a month, which will leave a small profit; and the present prospects promise a gradual increase.

**CWM SENON** has progressed very satisfactorily during the year. In December, 1856, the new pumping-wheel was set to work, and the bottom of the mine (60 fms.) was again seen in February, 1857. After that, a great deal had been done to bring the mine into proper working order; since which 110 tons of lead ore

have been sold for 2330s., and another parcel is ready for sampling. The shaft has been sunk to the 70, on a good lode, and new levels are about to be driven in ore ground at once. There is stated to be a run of ore ground 80 fms. long in the bottom of the 60; and the 60 east and west are worth 5 to 6 cwt. per fm. The stopes and pitches continue productive. The mine adjoins East Daren and Cwm Erfin, the former of which has made a profit of 6000s. to 7000s. in the past year, and the latter having greatly improved lately, and it is said will sample 40 tons for the past month. By the end of 1858, Cwm Senon will probably be making good profits.

**DEVON AND COURTWAY.**—During the early part of the year but little was done in exploring, but in May the adventurers decided on going deeper, which should have been done earlier. The shaft is being sunk to the 160 fm. level from the 9, and is now about 5 fms. below the 90; there is every encouragement, as the lode, which was rich in the 80, and on which a winze was sunk about 10 fms. in the bottom of the 80, is very good there, worth from 2 to 3 tons of ore per fm. A water-wheel keeps the mine dry, and there is an engine for drawing and crushing, so that when the lode is opened on in the 100 there will be nothing wanted to carry on the operations efficiently. The sale during this year amount to above 1400s., principally from tributers. The side lodes in this sett should be seen, and can be easily commanded by cross-cuts from the 80.

**DEVON BURRA BURRA** has been progressing, and a discovery is daily expected in the 40 east, at White's shaft, from which fine stones of grey ore were secured; the interest increased so much as to overpower the works. The water is now nearly in fork.

**DEVON GREAT ELIZABETH** is a new discovery, situated in the parish of Widdicombe, near the River Dart. Operations were commenced in October last, by an open cutting 10 ft. deep, from which some very rich ore (30 tons) have been raised. A shaft has been commenced about 94 fms. from the present point of operations, where it is intended to erect a water-wheel, there being an abundant supply of water at all seasons. The prospects are considered very good.

**DEVON WHEAL BULLER** last year held out good promise, but so far has disappointed expectation. The shaft is down 58 fms., and a cross-cut driven north 1 fm., where the lode was discovered, of the same character as in the 44 when first cut—in unsettled ground; but as it is driven upon, and gets under the productive ground in the 44, hopes of improvement are entertained. In the last two months a ditch in the 44, west of western shaft, worked by two men, at 11s. in 14, yielded 130s. worth of ore.

**DEVOTCOO WOOD** is on the same lode as Wheal Glyn, and is considered to be an excellent speculation; but whilst the adventurers are among the wealthiest men in Cornwall, so that it may be said the mine has the best set of shareholders, in a pecuniary point of view, of any mine in England, they do not appear to have much of the spirit of adventure in them; for the works have this year been suspended, when a moderate outlay might make the mine remunerative.

**DOLWEN (Wales).**—A line of rods has been erected for the purpose of pumping the water and sinking the engine-shaft to the 20, the present depth being 13 fms. The object in view is to get under a bunch of lead ore several fathoms in length, seen about 7 fms. to the east of this shaft, at a shallow level, in proving this the expenses will not be much, and it is generally considered that large quantities of lead will be found. Should this be the case, an adit cross-cut can be brought in under the ore ground at a depth of 90 fms., at the mouth of which there is a large stream of water, and every requisite to work the mine effectually.

**DUKE OF CORNWALL** returns a good quantity of ore, and the company have been led to expect dividends. The ore, however, is of such a low produce that calls have had to be made to continue operations. In the 12 months copper ore to the value of 7262s. 13s. 5d. have been sold, and 197 persons employed.

**EAST ALFRED CONSOLS** has sold copper ore to the value of 2643s. 6s. 2d. this year. This has been raised from an adit 13 fms. from surface. The shaft is down to the 13 fm. level; and when the winze is down to it, the operations will be carried on with greater facility, and get under the ore ground gone over in the adit. The mine produces good quantities of copper ore. There is another south lode seen in the adit, 5 ft. wide, producing fine lead and good stones of copper ore. This is expected to be cut in 15 fms. driving, the cross-cut being pushed with all speed; and good results are anticipated as it comes in contact with the same elvan course which made the ore in Alfred Consols and Great Alfred. There is a 40-in. engine on the mine, and pitwork for 50 fms. deep. The sett is large, and several lodes are yet unworked. As a young mine it has done well, and we hope better things will follow.

**EAST BASSETT**, situated in the heart of the Basset district, is a mine to which public attention was first called in my Review of 1854, and to which I have since constantly referred as one of the most favourable speculations of the day. In my last year's Review I stated it would probably prove, as it has done, one of the prizes of 1857. The shares were then in 256, and the price 75s. In May they were subdivided into 512, and the price now 90s., or 180s. for the 256s. No one, I believe, would doubt that the mine is a rich one, and that it will become a rich mine, but there has been a great diversity of opinion as to the time required to develop it, and those who a year ago predicted "that in a year or two would be the time to buy" have proved wrong, rich discoveries having been made in the 60 fm. level east, on the tin and south lodes, which many thought would not prove productive until cut in the 80. In May, the 60 east, on the tin lode, began to improve; and the report at the last meeting, held on Sept. 23, states that the end "was then worth 40s. per fm., and that for the last 5 or 6 fms. driving the lode in the back and bottom was worth 60s. per fm." For the last 3 fms. driving the end has not been so good, but it is now clear that the tin lode in the 80, which was first cut in the 60, is a very rich one. The tin lode, east of the present end, says much for its value. The sales of tin from this lode since July have produced 619s. 18s. 7d., and might have been made more, but the shareholders have very wisely determined not to sacrifice their ore at the present reduced price. The whole of this tin discovery may, therefore, be said to be in reserve, and as the back is so valuable, and there is no level from the 30 to the 60, it is a very important feature. In September last a course of copper, worth 2 tons per fm., was discovered in the 60 east, on the south lode, which in October was followed by a much greater discovery; and the manager (Capt. R. H. H. H.) issued a circular to the shareholders, announcing that it was worth 100s. per fm. From that time to the present this end has continued very valuable, varying in produce, as all ends will do, from 4 to 10 tons of rich ore per fm.; the lode is now 7 ft. wide, yielding about 5 tons per fathom. On Dec. 3 the first parcel of copper was sold, 39 tons, the result of about 3½ fms. driving, which realised 331s. 9s. The next sampling will be in a fortnight, and will probably be about 40 tons. It will thus be seen that the mine has assumed a good position, and there are many important points to come off, the realisation of any one of which will add greatly to the value of the property. The first of these points will be cutting the tin lode in the 80, now distant 4 fms. The next point, of still greater importance, is cutting the south copper lode, also in the 80, distant 14 fms.; this will probably be reached about May. Another important feature in the mine is that granite has been reached at the engine-shaft 5½ fms. below the 60, where there is a lode 3½ ft., rendering it very probable that both the tin and south lodes will be cut in the 80 in granite, close to the junction with the killas. A large business was done a few weeks since in the shares, and they rose to 125s., but the price receded, from the state of the metal and share markets. The mine will probably pay dividends about July next, and there will be a great rise in the shares again in 1858.

**EAST CARADON.**—The prospects here have been gradually improving. At Williams's shaft, in the 33, a very rich lode is 3 ft. wide, all saving work, and from the favourable change which took place between the 20 and 35 great expectations are formed at a deeper level. The 40 cross-cut, south of engine-shaft, has been driven about 8 fms., and there are about 15 fms. more to drive to cut a lode which promised well in the adit.

**EAST CARN BRERA** is situated in the Redruth district, and joins Wheal Union, which is directly north of it. The present company commenced working it in February last, and have laid out 2004s. 4s. 2d.—the principal operations having been in clearing levels 370 fms. and cross-cuts 230 fms. There are seven lodes in the sett, within a short distance of each other, all underlying north, and of a promising appearance; these can be laid open by cross-cuts from the intended engine-shaft. The old engine-shaft has been sunk 5 fms. below the 10 fm. level, and a cross-cut extended south 3 fms., where a branch was intersected, and must fall in with the main lode in a few fathoms sinking. With this number of lodes in the sett, and the favourable nature of the ground, the mine is looked upon as a good speculation.

**EAST FRONGOCH.**—The shaft is sunk to the 30, and two lodes cut. The north lode is a very large one; several fathoms have been opened on it, but as yet nothing worthy of remark has been found. The south lode has been driven on east between 30 and 40 fms., and for a great many fathoms has shown highly promising features for producing lead; and although the stuff raised has not been rich, it is of sufficient promise to recommend the shaft to be sunk to the 40. A great portion of the work is already accomplished, and a few months, no doubt, will enable them to see the lode at this level, where it is expected to be good ore.

**EAST GUNNIS LAKE AND SUTTON.**—The prospects are, however, such as give every encouragement for further development. The mine is well situated, and the geological conditions are highly favourable. The returns for the past year are 465 tons of ore; amount of money, 1502s. 8s. 11d.; cost, including dues, 3843s. 2s. 7d.; average number of men employed underground, 33; and at surface, including boys and girls, 38. The latest report states that the lode in Red Whim shaft has again become productive, and is worth 2 tons of good ore per fm.

**EAST MARGARET** has sold 81 tons 12 cwt. 26 lbs. of tin for 5699s. 17s. 10s., and called up 1024s., and the mine is not in a position to pay its tin with the present price of tin. In 1854, the mine paid a small dividend of 256s., and expectations were then held out that continuous profits would be made. The subsequent career of the mine, therefore, has been very disheartening to the shareholders.

**EAST PROVIDENCE** is in Lelant, to the east of, and on the same lodes as, the Providence Mines. The operations have been driving a deep adit from the sea shore west on Providence north lode, which is 1½ ft. wide, producing rich stones of tin, and worth 6s. per fm.—driving at 4s. This end has occasionally produced good work, but is considered too shallow for much good, and a flat-rod shaft has been commenced upon it about 20 fms. before the end, now 2 fms. deep, and lode producing tin. An adit also driving south on Providence cross lode, where also good tinstuff is found; the present end is reported worth 6s. per fm. Both these lodes have been productive in Providence, but the main object of East Providence is the south lode, which has been worked by the ancients for a great length in the sett, and as deep as they could go to the water, about 5 fms. from surface. An engine has been purchased, and is to be put at once on this lode. Altogether the prospects of this mine are considered good.

**EAST ROSKARN (Gwinear).**—The engine-shaft has just passed through the elvan—the same elvan course which passes through Roskarn United Mine, and, under which the great deposit of rich copper ore was found. The agents anticipate, from the character of the lode now in the 33 fm. level, that bunches of copper ore will be found. Capt. Charles Thomas has recently inspected the mine, and states that the north lode has improved since he last inspected it, and, though the lode is small, it is yielding copper ore of a rich quality. Four or five lodes pass through this sett to a great distance apart, and the agents believe a few months' spirited working will produce beneficial results to the adventurers.

**EAST TAMAR CONSOLS.**—The south part of this mine was destroyed at the same time as South Tamar. The north part, however, was preserved, and the engine and machinery have been removed from Fowhill to Lockridge. The shaft has been cleared up to the 30 below adit (or 60 from surface), and is now being sunk for another level. All the old drivings have also been cleared, and the ends now driving are in whole ground. They have commenced sampling again, and there is a fair prospect of the returns being soon equal to the cost; and it is hoped that the mine will become profitable. The returns for the past year amount to 554s. 2s. 6d., and the cost to 2295s. 4s. 6d., including the removal and re-erection of machinery.

**EAST TOLGUS (Redruth)** is to the east of South Tolgus and Great South Tolgus; it is divided into 256 shares, on which 47s. per share has been paid, and is under the management of Messrs. John Taylor and Sons. A steam-engine, of 36-in. cylinder, has been erected, and the works in full operation. The engine is placed on the engine-shaft of the Old Redruth Consols Mine, which is now 48 fathoms deep.

The 12, 22, and 34 fm. levels are being driven through a promising lode, producing at times good bunches of ore; and when the eastern shaft is cut down, so as to get on well with the levels, good discoveries are expected in this promising concern.

**EAST WHEAL RUSSELL.**—Much has been said about this mine in the last few years, and we hope the recent improvements reported will prove more permanent and substantial than the previous ones, and that in the coming year we shall have facts to support the opinions of those who have so strongly backed the mine. At present, there is every prospect of our being able to congratulate the shareholders before long on the success of their perseverance through "good and evil report." In November, 37 tons of copper ore were sold for 436s., being an average of nearly 12s. per ton, notwithstanding the low standard; and upwards of 45 tons are again sampled, which, it is said, will fetch a still higher price. The lode improves in each level as they go deeper, and in the 66 has passed through a course of ore worth an average 3½ tons of ore per fm., for 35 to 40 fms. in length, being best along the bottom of the level. There are eight men driving the 85, which in a few months will be under this ore ground. The shaft is sunk 100 fms. In 1857, 95 tons of copper ore were sold for 835s.

**FORTESCUE**, near Bodmin, in 1855 and last year yielded 1480s. 11s. 10d. worth of silver 3 fms. from the surface, and two dividends were declared—208s. 10s. in the former year, and 375s. in the latter. The lode then made a spillover, and led to the suspension of operations until September last, since which the shaft has been sunk 100 fms. with four men at work, and with a staff raised to 500. In the bottom of the shaft the lode contains silver ore, and the works are progressing favourably.

**FRANK MILLS** has not done so well during the year as was expected; however, the mine has yielded in this time 303 tons 13 cwt. 3 qrs. of lead, realising 3711s. 4s. 7d., is now looking better, and will increase its returns.

**GARRO** has been progressing very slowly during the year; but a few weeks since the cross-cut, which had been many months driving towards the lode, intersected it—of a promising character, and from which the agent anticipates good results. A few years since the mine made good returns, and was considered a first-rate speculation; but, like too many other mines in the district, the ore proved shallow. If met with at the present place of operations, and to which the engine was removed at great expense.

**GAUNT COPPER** has sold during this year upwards of 1500s. worth of ore, against a monthly cost of 160s. to 200s. In the 38 west there is a good lode, reported 3 ft. wide, worth 9s. to 10s. per fm., and promising for improvement. The water-power is sufficient to put the mine down 50 fms.

**GERNICK**, a year or two ago, was considered a most promising speculation, with a lode for copper worth 40s. per fm.; but in depth the lode did not look so well, and from arrears of calls and other circumstances the work was suspended. Of late, however, a project for resuscitating the concern has been set on foot, and it is to be hoped ere long the mine will be in full operation again.

**GOGINAN SILVER-LEAD** (Cardiganshire) is under the management of Messrs. John Taylor and Sons. The original capital subscribed was 5000s., on which the mine made a profit of 45,000s. from one lode, which has been worked 120 fms. deep. This lode became poor in the bottom, and 11,500s. was subscribed during the last two or three years, to carry out extensive operations to try two other large lodes, towards which cross-cuts are being driven, opposite to the productive part of the old lode, and it is expected they will shortly be cut, and prove more than 100 fms. from the top of the hill; and good discoveries are anticipated. Good prospects are also apparent in the western part of the mine, where a level is being carried forward into the dip of the ore ground from Wheal Consols old mine, which level will be more than 100 fms. deep when it reaches the boundary of that mine. The Wheal Consols Company have for some time been getting their returns from a little mine adjoining Level Newydd, the eastern mine of the Goginan Company. Goginan Mine is abundantly supplied with water for all purposes; hence no steam-power is required. The present returns are about 25 tons of lead ore a month, which it is hoped will be able to meet the cost of the mine, and in the event of either of the trials now in progress proving successful, as may be reasonably expected.

**GONOMENA** has sold in 1857, 865 tons for 6999s., against 780s. tons and 6889s. in 1856. Most of the ore has been broken from ground previously laid open; the ends driving east towards the boundary cross-course, which has not yet been reached, having been poor, as well as the western levels, excepting that one of the latter, the 48, which is the furthest west, has lately become productive, and it is hoped is entering a new channel of ore ground. Some ore has also been discovered in the south part of the mine, adjoining West Caradon. Shares have fallen considerably in price, from a fear that the series of ore should not be able to stand in time to permit a call becoming needful. At the last meeting, Nov. 5, there was a balance in favour of the adventurers of 86s. 2s. 4d.

**GREAT CARADON AND SLADE** is a promising young mine, to the east of South Caradon, and worked under the Limited Liability Act. It is supposed that some of the lodes of South Caradon pass through this property, and upon one an adit has been driven 80 fms.; it is 5 feet wide, with a leader of mundle, and spotted with yellow copper ore.

**GREAT CONSOLIDATED MINES.**—These, the largest mines in Cornwall, perhaps in the world, with nearly 70 miles of levels underground, have been stopped during this year, owing to the enormous cost of working them. The large engine, Taylor's, has since been sold to the Clifford Company, to drain that mine to the 120, and it is thought by some that this may lead to the reworking Consols above the 140, where it is known great quantities of tin can be raised from the black lode. Under different workings, the Great Consols have made about 1,000,000s. sterling profit.

**GREAT ONLOW CONSOLS.**—A cross-cut is driving to intersect the lode in the 110 fm. level, and hopes are entertained of meeting with success.

**GREAT WEST SORTRIDGE** is to the north-east of Sortridge Consols, and 2505s. 12s. 10d. has been laid out upon it this year. The engine-shaft has been sunk altogether 51 fms. 4 feet from surface. In the 50, the lode in the shaft averages 2 ft. wide, composed of capel, quartz, mundle, and a little ore. The 50 is to be extended west to intersect the cross-course, about 12 fathoms ahead, and here the lode, judging from its character in the 30, is expected to improve.

**GREAT WHEAL ALFRED** has sold this year 2238 tons of copper ore, yielding 12,578s. 11s. 1d., and has called for 6400s. At this time last year prospects were held out of an early dividend, and shares rose to 15s. each. An accident, however, happened to the machinery, which for some time delayed the mine, delayed the work, and cost the company upwards of 5000s. Of late the mine has been yielding a large quantity of copper, and improving in the bottom levels, so that it is hoped and expected it will do better in 1858.

**GREAT WHEAL BADDERNY** has sold 272 tons 18 cwt. 3 qrs. of lead since January, realising 4448s. 11s. 6d., and calls to the extent of 512s. made. The progress of this mine has been favourable, and it bid fair to be in the Dividend List long, the accounts showing a balance in favour of the company of 363s. 7s. 10d.; as soon as the 61 end has entered the productive part of the elvan, good ore ground will be opened to a profit.

**GREAT WHEAL BUSY** this year has called up 2s. per share, or 1200s., and has sold ore to the value of 5280s., all from levels above the 60. This amount, in addition to the calls, has been spent in thoroughly draining and developing the mine. The shafts and levels have been cleared up, and the returns will doubtless be considerably increased.

**GREAT WHEAL VOR** has made calls this year to the extent of 17s. 2s. 6d. per share on 26,666 shares. The fall in tin is of serious consequence to the company, but the descent great credit for the spirited manner in which they go on. Such calls as 30,000s. in one year would have disheartened almost any other company. The mine is in fork to the 340, and the company are determined to see the bottom (the 280), where the ore is reported to be 100 fms. long. The tin sales amount to nearly 3000s. a month.

**HINGTON DOWN** has returned this year 1492 tons of copper ore, realising 9232s. 11s. 6d., but has not divided any profit. In 1856 the dividends were 3900s., and, from the late improvements in the mine, it is hoped that before many months it may pay again.

**HOLMBUSH** has sold copper and lead ore to the value of 10,346s. this year, and made calls to the extent of 2356s. The mine is at the junction of killas and granite, and for many years worked at a large profit. Two or three years ago, however, the stoppage of the Callington Mines, which had made enormous returns of lead, and several engines pumping, inundated Holmbush with water, and made it necessary for the company to expend a large sum of money to clear the mine of water, and we hope they are now about to reap the benefit of their



the copper lode to the north of this. In the 30 a fine lode of ore has been passed through several fathoms, worth about 20l. per fm.; and a winze sinking from the 30 a few fathoms before the end in the 30, is also worth 20l. per fm., and in a beautiful granite. The north shaft is now being sunk below the 30, and to sink this 10 fms and drive a cross-cut will take about nine months.



## Mining Correspondence.

## BRITISH MINES.

**WHEAL UNITY.**—In the course of the present year this mine has been fully fitted with adequate machinery for carrying the present workings to a considerable depth. A fine 40-in. cylinder pumping-engine has been erected at Maria shaft, and a line of flat-rods carried to the original, now called the flat-rods shaft; this latter has been sunk to a depth of 40 fms. below the old, the last 10 fms. sinking being through a good ore ground and west of this shaft has been laid open, and the mine is now in a fair state of working. The samplings average from 25 to 30 tons of good ore per month. Some of the ore is very rich, a small quantity having sold, about three or four months since, at 55s. 15s. per ton.

**WHEAL VYVYAN.** In Constantine, stopped last year, and was then taken by some poor men, who worked the backs and the adit, and made 1000s. to 1200s. The low price of tin has caused them to give it up again.

**WHEAL ZION** has sold copper ores to the value of 9817. 7s. 3d., not equaling the preceding year; but the prospects of the mine are improving, particularly in the 65 east, where the lode produces a great deal of fluor-spar, with green and spots of yellow ore. The north lode is soon expected to form a junction with the main lode at this point, and good results looked for. The north lode is supposed to be the lode of Calstock Consols, as in that mine there is a great deal of fluor-spar mixed with their ore, and they had a rich bunch also at the intersection of two lodes. The 30 west, on main lode, looks well, lode 4 ft. wide, with stones of copper ore.

**WILLOW BANK** is a very promising mine, the lode being considered one of the finest in Cardiganshire. The 30 has lately been commenced, and is passing through stopping ground, which cannot be rendered available till dressing machinery is erected, and floors made. In cutting the wheel-pit 4 tons of lead ore were broken, and sold at 16s. per ton.

**YARNER.**—To the south of the Dartmoor ridge of granite, in Isington, Devon. An adit has been driven south into the hill 10 or 12 fms., laying open two lodes: the north 3 to 4 ft. wide, the south 18 in. to 2 ft. wide, with green, and a promising appearance; on the former not much has been done, and on the latter has been sunk 5 ft. below the 10. The 10 is extended east 10 fms., on a long lode, the north branch yielding nearly 1 ton of ore per fm. There is a cross-cut driving north to intersect the lode mentioned, in the adit. The facilities for working this mine are very great; there is a never-failing stream of water, and the ground is easy for exploring. Since this was written a great improvement has taken place, and the mine bids fair to take a good position.

## JAMAICA.

During the last twelve months mining in Jamaica has been steadily progressing; and as the work advances the improvement is such as to warrant those interested in anticipating favourable results.

**AT STAMFORD HILL MINE,** the property of the Clarendon Consolidated Mining Company, the operations have been carried on with vigour, and the lode has been improved in depth, machinery is to be erected at once, to thoroughly prosecute the mine. Without the aid of machinery the lode has been seen 60 fathoms deep by means of adits driven into the hill; but this mode of working can no longer be carried on, except at a great sacrifice of time and labour. After the machinery is set, sinking on the course of the lode will be commenced, and good results are expected in depth. A small parcel of ore has been sold, and a few tons are now on the floors.

**HOPE SILVER-LEAD MINE.**—This mine is worked by private enterprise. Four adit levels have been driven, and in the 30 the lode is of great width, and remarkably rich. Several hundreds of tons of ore are said to be on the dressing floors, and a considerable shipment would, ere this, have been effected had it not been for the delay of the vessel upon which some of the stamps were shipped.

**CHARING CROSS MINE,** the property of the Wheel Jamaica Copper Company, since its commencement has sold over 200 tons of ore, realizing high prices. At present the operations are confined to the cross-cut in the 65. The last accounts describe "all things as going on well," and from 20 to 30 tons of good ore were ready for shipment.

Amongst other local companies, whose prospects are encouraging, may be mentioned **ELIZABETH** and **BARBOWIE** and **RIO GRANDE**; both of these mines have already made small shipments of ore.

The late Sir H. De la Beche entertained a favourable opinion of the mineral wealth of Jamaica, as also did Col. James Nisbet Colquhoun, a man of considerable experience in mining in Mexico and other parts of the world. And skill, patience, and labour are required to bring mining to a successful issue. There is said to be no difference between the stratification of Cuba and Jamaica, and there can be no reason why valuable mines should not exist in the one as well as in the other. Over 300 tons of Jamaica copper ore have been sold in this country and the United States, realizing prices which sufficiently indicate the quality of the ore, and its remunerative value.

**WORTHING MINE,** near Adelaide, South Australia, although worked by a London company, had been quite neglected; and the rush of miners to the gold diggings precluded carrying on the work at the mine, except at great expense. The works are now, however, being pushed on with vigour and spirit. The company possesses about 1500 acres of freehold land within a few miles of Adelaide, producing a rental of 5000. per annum. At the Bremer Mine, the latest advice state that an engine has been erected, and is steadily working; two shafts are being sunk, and although one is only 9 ft. deep, and the other 6, tribute pitches are set at both places, and the ore raised to the surface by a small engine. The freehold land is said to be worth more than represented by the present price of shares.

A happy new year, and prosperous, to "ONE AND ALL."

**MINERAL WEALTH OF NEWFOUNDLAND.**—The almost totally unknown regions of Newfoundland are soon likely to become as celebrated for their rich mineral deposits as the seaboard now is for the valuable cod and seal fisheries which support the great bulk of the population. The explorations and surveys of Frederic Newton Gisborne during 1851 (which were made preparatory to the successful completion of his great electric telegraph enterprises), first brought the colony into prominent notice as a mineral district. Mr. Gisborne then became connected with Mr. Charles Fox Bennett, an enterprising merchant of Newfoundland, and in the autumn of 1856 opened two mines for copper in Conception Bay, under the respective names of the Turk's Head and English Ridge Mining Companies. These companies have each a capital of 20000. in 1s. shares, upon which 10s. per share has been called up. From the former mine about 20 tons of rich "horse-dish" copper ore has just arrived in Liverpool, and is worth from 15s. to 35s. per ton, although shipped in the rough as raised to grass. From the latter mine a similar quantity of grey ore has reached Liverpool, worth from 20s. to 60s. per ton. Ten tons realised, at the Harrington Dock, 32s. per ton, although, as in the case of Turk's Head ore, it was likewise exported as raised to grass. Another result of Mr. Gisborne's explorations has been the formation of a company, under the title of the Newfoundland Mining Association (Limited), with a capital of 50,000. in 1s. shares. The object of the company being to search for and develop the mineral resources of the colony. About 40,000s. of the capital was at once subscribed for, and a 1s. call paid thereon. The result of last summer's explorations in the discovery of silver, copper, galena, and iron, in several localities. A copper lode in Placentia Bay is now being worked by a staff of Cornish miners, imported by the association, and 2 tons of ore have just arrived in Liverpool as a sample therefrom.

The New York, Newfoundland, and London Telegraph Company have also opened a lead mine in Placentia Bay, upon one of the strips of land conceded to them by virtue of their colonial charter, and have shipped therefrom to Liverpool about 100 tons of ore, which yielded 75 per cent. of pure galena. The mine has since been sold for \$200,000, say 40,000s., cash payments—a very evident proof of the supposed value of the deposit.

**MINING IN CANADA.**—We have received from Messrs. Richardson and Co., Swansea, the following result of the assays of two parcels of copper ore, received by Messrs. Glidstone and Co. on consignment from Harvey Hill Mines, Leeds, Megantic, Canada:

58 sacks (tickling No. 23), about 12 tons, of 40% per cent. pure copper.  
18 sacks 1 keg "33," about 4 "34."  
Several parcels have been raised, in all about 70 tons, and the aggregate result has been over 40 per cent. The property consists of upwards of 4000 acres, within about 60 miles of Quebec, and about 20 miles from the Grand Trunk Railway.

We have received the following remarks on the market from Mr. Crofts: After an interval fraught with gloom and stagnation of business, it is a pleasant task to resume the pen, and predict, if we cannot insure, a more encouraging future. The monetary panic through which we now may be said to have passed, and to have consigned its disagreeable and losses to the page of history, has proved one of a greater intensity of evil than any of the four (dating from 1825) of which the writer has any reminiscences, and, like other storms, it has left many a fair vessel on the strand, either to be repaired, if not too much shattered, or broken up as totally crippled and useless. It was not to be expected that so severe a visitation was likely to leave unscathed the mining interests of our country, still less that they should suffer in only a slight degree. Its effects have been to reduce the average value of shares at least 50 per cent., even including dividend mines, which presenting a more solid front than speculative stocks, are the last to succumb and deceive their holders. Thus much for the dark side of the picture. It is well, and should be better known, and the knowledge more extensively acted upon, that the safest markets to buy in are depressed ones; and such is now the characteristic of the mining market to a degree never before known; for, whilst the majority of well-managed mines have been keeping on "the even tenor of their way," with regard to production and sales of ore, their shares have been resuming to the general apathy of purchasers, and subsided to, in some cases, almost nominal prices, at which point the most fearless and far-seeing capitalist is now beginning to operate, and with the certainty, it may be safely predicted, of large profits hereafter. To demonstrate such a result in the face of experience would be superfluous, but if proof were wanting reference might fairly be made to operations on the Stock Exchange in railways, British, colonial, and foreign, in which it is no exaggeration to say that large fortunes have been realised; and the same result, diminished only in degree, the operations of the courageous adventurer into such mining stocks as come within the category we have already described. As matters stand, therefore, it is suggested that the market at the present moment is rather one to buy than to sell in; and where that alternative suits the convenience of individuals we can, and do, confidently repudiate that delay which, in waiting for the lowest point, generally misses it. A wonder of things, touching the management of money affairs, is now dawning upon the market, since the joint-stock banks have, it is stated, resolved to fix their maximum rate of interest upon deposits, irrespective of the Bank rate, at 5 per cent. for the future, and thus virtually condemning that system (originated by themselves) of bidding the highest possible price for money, and enlarging with it the area of discounts to such verge as to derange the whole commercial fabric. It is "better late than never" to see an error, and we thank them for the amendment.

**GERMAN GOLD.**—Strata of auriferous soil have been discovered on the slope of a hill on the banks of the Rhine, near the village of Lingenfeld, and which, it is hoped, will turn out to be productive.

**SULPHUR IN CALIFORNIA.**—Near the borax lakes, and about three miles from Clear Lake, Napa county, there is a sulphur bank nearly 30 acres in extent, and supposed to be 30 ft. thick. The sulphur, which is sufficiently pure for the use of the Mint at San Francisco, seems to be constantly forming from a dam stream rising over the whole surface continually.

**ASBEY CONSOLS.**—J. Trewin, Dec. 28: The south part of the lode in the 10 fm. level, east of the engine-shaft, is worth 6 cwt. of lead ore per fm.; but we are of opinion there is more in it to the north, and have put the men to cross-cut in that direction, to prove it. The lode in the back of the adit, west of said shaft, is worth about 5 cwt. of lead ore per fm. The lode in the adit east, west of the eastern shaft, is producing 4 cwt. of lead ore per fm. There is no change to notice in the adit east of the eastern shaft; the lode is composed of quartz and blende, with spots of lead ore, altogether a promising lode. There has been no lead broken in the eastern shaft during the past week. No. 1 stopes are worth from 9 to 10 cwt. of lead ore per fm. No. 2 stopes are worth of the same value, yielding 7 cwt. of lead ore per fm. The main lode in the 120, east of the engine-shaft, is worth 50s. per fm. This lode in the 100, east of the above shaft, is worth 50s. per fm. The north lode in this level, east of said shaft, is worth 20s. per fm. The main lode, west of No. 2 winze, in the 110, is worth quite 40s. per fathom. The north lode, in the winze sinking below the 100, is worth 8s. per fathom. The north lode in the 70, east of flooken, is 18 in. wide, having a promising appearance. All the other parts of the mine are just as last reported.

**ALFRED CONSOLS.**—M. White, T. Trelease, T. Hosking, Dec. 30: The north lode in the 140, east and west of cross-cut, is much the same as last reported; this lode, in the winze sinking below this level, is about 6 in. wide, grey. This lode in the 130, west of cross-cut, is worth 15s. per fm.; this lode, in the winze sinking below this level, is worth 30s. per fm. for the length of the winze, which is 9 ft. long. This lode in the 120, west of cross-cut, is split into two parts, not of much value. The lode in the 120, east of the engine-shaft, is worth 50s. per fm. This lode in the 100, east of the above shaft, is worth 50s. per fm. The north lode in this level, east of said shaft, is worth 20s. per fm. The main lode, west of No. 2 winze, in the 110, is worth quite 40s. per fathom. The north lode, in the winze sinking below the 100, is worth 8s. per fathom. The north lode in the 70, east of flooken, is 18 in. wide, having a promising appearance. All the other parts of the mine are just as last reported.

**BALLYMONEEN.**—W. Barkla, Dec. 26: In the 15, driving east, there is a great deal of water coming from the end; the poor piece of ground mentioned in my last report is still holding, which makes the driving not so good for sulphur—driven since last report 4 ft. 6 in., total driven 2 fms. 3 ft. 6 in. In the 15, driving west, we have still good sulphur, and particularly in the bottom of the driving—driven since last report 2 ft. 2 in., total driven 5 fms. 2 ft. 8 in. In the winze sinking below the adit level the ground is rather slow for sinking—sunk since last report 3 ft. 8 in., total sunk 8 fms. 0 ft. 6 in.

**BALLYVIRGIN.**—D. Macdonald, R. Fellow, H. Kellaway, Dec. 24: Since last report we have put to pit ½ ton of first crop, 2½ tons of second crop copper ore, 2 tons of lead ore, and 13 tons of muddle, and have prepared for the crusher 2 tons of first crop and 3 tons of second crop copper ore, and 3 tons of lead ore, and have crushed 30 tons of lead ore, which is now being cleaned. We have also put to grass 40 tons of muddle and 2 tons of copper ore, also 3 tons of lead ore.

**BAMPFLYDE.**—C. Hand, Dec. 28: The lode in the 40 is beginning to produce ore, worth 3s. per fm., and looking very promising for an improvement. The south lode in the 40 is also of the same value, and is improving. The sinking upon the new lode is sending for the present, without any change in its appearance. The lode in the 30 and 40 are now producing nearly as much as before. The lode in the 60 west is 4 to 5 ft. wide, and poor; judging by the old workings in the 40, an improvement should take place in the 60; the cross-cut in the 60 is now probably within 6 ft. of the Bampflyde lode, and is making water with increased force. We shall sink below the 30 with the new (No. 4) shaft in a day or two, and expect whole ground at about 2 fms. from this level. This mine is improved since last report.

**BEDFORD CONSOLS.**—J. Hodge, J. Mitchell, Dec. 31: The lode in the adit is 1½ ft. wide, 1 ft. of which is solid muddle; this we shall save to itself: we are in hopes that we shall soon have ore in this end.—South End: The lode has not been taken down since our last. The masons are progressing favourably with the buildings. All other things are as stated last week.

**BODCOLL.**—F. Evans, Dec. 28: Evans's shaft sunk last week 1 ft., making the total depth 7 fms. 3 ft.; there is nothing new here since my last. The 1st west has been driven since my last 4 ft., making the total driven 35 fms. 3 in.; the lode is just the same as last reported.

**BRONFLOYD.**—M. Barby, Dec. 31: The south lode in the rise in the back of the deep adit is still opening out some good stopping ground, and yielding from 10 to 15 cwt. of lead ore per fm. The 17 fm. level is extended south of No. 2 shaft 3 fms. 3 ft., and has intersected the south lode, but judging from its immense size, about 24 ft. wide, it will in all probability take us from four to five weeks to reach the south wall. We have cut into the lode for about 3 ft., and for this breadth will yield ½ ton of lead ore per fm. This materially improves our prospects, and as soon as the lode is through the lode, and the communication is made good by the rise from the level below, our future returns will be much facilitated. All surface operations are now proceeding very satisfactorily.

**BWLCH CONSOLS.**—R. Northey, Dec. 28: The lode in the 40 west is small and poor, and not of value. No alteration in any part of the mine since last report. In consequence of the improvement in the 60, together with the mildness of the weather for dressing, I shall be able to sample about 36 tons of good quality lead ore by the middle of next month.

**CAMBORE CONSOLS.**—Wm. Roberts, Dec. 29: Nothing new since my last.

**CARVANNALL.**—Wm. Robert, Dec. 29: The engine-shaft is down 12 fms. under the 115, and the men have commenced driving the 130 west, in which the lode is 3 ft. wide, chiefly composed of crystallised iron and muddle. In the 118 west the lode is 1½ ft. wide, unproductive. In the 106 west the lode is 2½ ft. wide, with a branch of ore on the north side, producing ½ ton per fm. In the 78 west the lode is 2½ feet wide, producing a little ore.

**CARVATH UNITED.**—R. Hancock, Dec. 29: We have cleared up the stuff in the different levels, and are now driving the 40 east and west. In the east end the lode is large, and yielding some tin, but is rather hard for the present. In the west end there is some good work for tin; we have begun to stop the back of this level, and there is a good lode in it. In the cross-cut, east of the engine-shaft, in the 30, the lode is favourable for driving. The lode in the 20 and 30 levels are yielding just the same quantity of tin as last reported. We have set a pitch in the back of the 20 for 10s. in 1s. to three men for two months. The pitch in the back of the eastern adit is producing rich work for tin, and the men are getting good wages. Everything on the mine is going well, and we intend to clean up about 3 tons of tin by next pay-day, which will be in a fortnight.

**CASTELL.**—J. Lester, Dec. 28: Everything is going on satisfactorily; the crusher is working very well, and we have a good supply of water.

**CATHERINE AND JANE CONSOLS.**—R. Barry, Dec. 31: Last Saturday being our setting day, the following bargains were set:—The deep adit end to be driven by six men at 5s. per fm., 2 fms. stent; lode 2 ft. wide, at present poor. The south-east stopes by two men at 55s. per fm., stented the month, lode 2 ft. wide, worth 8 cwt. of ore per fm. The north-west stopes by four men at 55s. per fm., stented the month; lode 18 in. wide, producing about 4 cwt. of ore per fm. No. 3 winze to be sunk by four men at 7s. per fm., holes to the deep adit level yesterday. As soon as the lode is squared down I shall put the men to stop south-east in this winze, lode 2 feet wide, worth 5 cwt. of ore per fm. We calculate on having 10 tons of lead ore prepared to sample about the 12th of next month.

**CHOLLACOTT CONSOLS.**—Jas. Carpenter, Dec. 30: We are sinking the engine-shaft satisfactorily; the horse machine commands the water easily.

**COLLACOMBE.**—S. Mitchell, Dec. 28: During the last month a new plunger-lift has been fixed at Morris's engine-shaft, and the sinking of this shaft (below the 72) will be resumed this week. The 72, east of Morris's shaft, has been driven on the north part of the lode 3 ft. 9 in., which is composed of capel, quartz, and rich copper ore. The 62 west of the western shaft, has been driven 2 fms. 3 ft. 3 in., and within 2 feet of the present end a cross-course has been intersected and cut through, where a good improvement has taken place, the lode being 2½ feet wide, composed of soft quartz, pyrites, and 1½ ton of rich ore per fm. The 40, west of the western shaft, has been driven 2 fms. 2 ft. 2 in. deep adit level yesterday. As soon as the lode is squared down I shall put the men to stop south-east in this winze, lode 2 feet wide, worth 5 cwt. of ore per fm. We calculate on having 10 tons of lead ore prepared to sample about the 12th of next month.

**CROSSGILL HEAD.**—G. Milliken, Dec. 28: We have sunk the sump in the New Road level another 6 feet, and have good ore as far as we have gone down; the vein will produce at least 2½ tons of lead ore per fm. The lode will commence to show to stop both east and west from the sump foot; the vein at each end of the sump will produce 2 bins of ore to the fathom. The west forehead is very poor, but there is good ore in the sole, which we will get by stopping from the sump foot. There is no alteration with the sump in the 17 fm. level.

**CWM ERFIN.**—The 57, going east of drawing shaft, shows symptoms of our nearing the ore ground passed through in the level above; the lode is 2½ ft. wide, composed of clay-slate, carbonate of lime, and blende, carrying a small branch of lead ore on the south or footwall. The lode in the winze sinking below the 45, 10 fms. east of the cross-cut, yields 12 cwt. of lead ore per fm. The 45, going east of the cross-cut, continues to be of the most promising appearance; lode from 5 to 6 ft. wide, yielding 1½ ton of lead ore per fm. During the past fortnight the ground in this end has been very wet, the lode at this time being much water. I attribute this to our having opened the old north workings, this being now about 2 fms. in advance of the same. The lode in the stopes over the back of the 45, east and west of the cross-cut, yields ½ ton lead ore per fm.; the stopes over the back of the same level, 15 fms. east of the cross-cut, yields 1 ton of lead ore per fm. The lode in the winze sinking below the 32 has somewhat improved since last report, yielding at this time 1½ ton of lead ore per fm. The rise which is being put up from the back of the 45, against the above winze, yields about the same quantity. A communication with those bargains may be expected by my next report. The lode in the 32, going east of cross-cut, is from 2½ to 3 ft. wide, yielding ½ ton of lead ore per fm.; the lode in the same level, proceeding west from the cross-cut, has not looked so well for the last few days, yielding at this time from 15 cwt. to 1 ton of lead ore per fm. A good start has been made with the 20 cross-cut south, and every effort will be used in meeting with the lode at the earliest period. We sample, this day, 35 tons of lead ore, being the produce of Dec. month.—Dec. 22.

**CWMYSTWYTH.**—We continue to look much the same: one or two of our ends are looking rather promising. The cross-road level west is worth 1 ton of good lead ore per fm.; we have now driven about 3 fms. and the end is still good. In Kingside adit we have a little ore, but we have not taken down much of the lode as yet. In the middle level, under Iwan's level, we have a little ore, worth 1 ton per fm.; we have only cut it the last few days, so that we cannot say much about it as yet. I think it is now set at 45s. per ton, it looks well; I think it produces about 4 to 5 tons per fm. We have not opened more than about 2 or 3 fms. south, and 2 fms. high. We have 4 or 5 or three more very good bunches of ore on Pugh's side. Kingside is very poor all through. We cannot set anything under 120s. per ton, and two bargains were not

taken. You mentioned in your last about driving east in Taylor's level; we still expect we have the Kingside lode to cut out, yet the lode we have cut are very poor ones; we have been drilling it out this last week, and we make it very near the lode, but I think the lode is very soft in this place. We never had such a time for dressing ore, we are doing more work than we did in the summer; we have such a good supply of water that we can grind any quantity of stuff.

**DEVON AND CORNWALL UNITED.**—T. Neill, Dec. 29: The south lode, driving east in Bastard's level, is improved since last week, now worth 3 tons per fm. The stopes in back of this level, west of north lode, is worth 1 ton of ore per fm.—Midway Level: On the north lode there is no alteration in the eastern level since last report. In the western level the lode is 6 ft. wide, producing 6 tons of ore per fm.—South Lode: In the winze in the bottom of this level the lode is 6 ft. wide, worth 2½ tons of ore per fm. In the stopes in the back of this level, west of rise, the lode is 15 ft. wide, worth 12 tons of ore per fm. There is no lode taken down in any other part of the mine.

**DEVON BULLER.**—Dec. 31: No lode has been taken down in the 44 west since my last report, but from the very favourable ground by the side, and the great quantity of water issuing therefrom, I have no doubt but what it is productive; it will take down next week in time for reporting thereon. The lode in the rise in the back of this level is very promising, and producing some good stones of ore. The pitch at the bottom of the 33 west is worth 2 tons of good ore per fathom. The pitch at the bottom of the 33 west is worth 1½ ton of ore per fathom. There is no change to notice in any other part of the mine.

**DRAKE WALLS.**—T. Gregory: We are progressing favourably in sinking Bettelley's shaft, the branches in which occasionally produce some good stones of tin. In the 92, east of Bettelley's, we have a good branch of tin, but the ground is slow of progress. In the 92, west of Matthews's, the branches are producing more tin, a good progress is being made; we have no change to notice in the 92 east since my last; the stopes in back of the 92 are producing saving work. In the 80, east of Matthews's, the ground is favourable for driving, with a good branch of tin; the stopes in back of this level are producing about the usual quantity. In driving the 70 cross-cut north we find some good stones of rich copper ore in the cross-course, the appearances here are very encouraging indeed. We have no change to notice in any other part.

**EAST ALFRED CONSOLS.**—H. Skewes, Dec. 28: Painter's engine-shaft is being sunk under the 15. The branch in both ends, on the north part in the 15, is producing stones of copper ore, muddle, &c. The south cross-cut is driving with all possible speed. We have holed the winze from adit to the 15. We shall now begin to drive under the ore ground gone over in the adit level.

**EAST CARN BREA.**—T. Glanville, Dec. 29: Nothing new to report this week.

**EAST HENDER.**—N. Clymo, Dec. 29: We are still sinking the main shaft with nine men; the lode is very promising, about 3 ft. wide, producing yellow copper ore, muddle, and jack. We have four men driving on the cross-course south, to cut the south lode; the cross-course is producing large stones of muddle, with spots of yellow ore.

**EAST ROSEWARNE.**—J. James, Dec. 21: At the engine-shaft we have finished sinking for bearers and eisten to fix the lift in the 33; the men are putting eisten; we hope with good speed to get the new lift working next week. In the 33, east of engine-shaft, the lode is about 2 ft. wide, containing some good stones of copper, with a promising appearance. In the 22 east the lode is 1 ft. wide, unproductive, in the 22 west, on the same lode, the lode is sinking below the 12 to intersect it, driven as far west as the western shaft, and put the men to drive a cross-cut north at this point. We have suspended this end, and put the men to drive a cross-cut north at this point. We have suspended the north lode, which we calculate to do in about 4 fms. driving.—North Lode: In the 22 east the lode is 1 ft. wide, with some good copper—tribute ground. In the 22 west the lode at present is small, with a little copper, but not to value. In the 12 east the lode is 6 in. wide, with stones of ore; we are anticipating an improvement here. No. 1 winze and stopes in the bottom of the 12 are yielding the usual quantity of very good copper. In the winze sinking about 15 fms. east of this the lode is 1 ft. wide, with good stones of ore—opening good tribute ground. We have put two men to sink a winze below the adit on Wheel Brook south lode, where the lode is 10 in. wide, with occasional stones of copper, and having a very kindly appearance. All other operations are without change to notice.

**EAST WHEAL FALMOUTH.**—Wm. Barrow, Dec. 30: The sumpmen are still engaged in driving the cross-cut west in the 30—without alteration. The 20 and 30, on Chennal's lode, is worth 3½ tons of silver-lead ore per fathom. Northey's stopes in back of this level, on the old lode, are worth 15 cwt. of lead ore per fm. All other places are without alteration since my report last week.

**EAST WHEAL RUSSELL.**—J. Goldsworthy, Dec. 24: We have cut the lode in the 88, which was heaved north about 2½ fms.; the lode is very hard, composed of coarse capel and hard kilia. We have commenced driving on the south side of the lode—ground rather stiff at present for driving. We are now stripping down the lode in the 66 east; the lode is large and ore, but not so ore as it has been. The stopes east of Williams's winze is not looking quite so well as when last reported. The lode in the winze sinking below the 55 is poor at present. The tribute pitch in the lode in the winze sinking below the 55 is poor at present. Nothing new in any other part of the mine. We shall sample, on Tuesday next, above 45 tons of good quality copper ore.

**J. Goldsworthy, Dec. 29:** We shall sample about 5½ tons of copper ore of good quality, computed, 32 tons. There is nothing new in any part of the mine.

**GAWTON COPPER.**—J. Gill, Dec. 30: In the 50 the men are making good progress; the lode is 2 ft. wide, producing at times excellent stones of copper ore, and has an improving appearance. The lode in the 30 end still continues large and promising, worth 9s. per fm. In the 24 end the lode is rather disordered and poor; I have suspended it for the present, and also the stopes in the back of the end, and have removed the men to the east of the winze in the bottom of the 24, where I find a part of the lode siding to the north, which is turning out some good ore, and likely to be a movable piece of ground. After a little further exploration, I shall be able to state its value. The stopes in back of the 30 are looking well, worth 15s. per fm. We sampled, yesterday, 35 tons of copper ore.

**GREAT CARADON.**—J. T. Penprase, Dec. 30: The sinking of the engine-shaft is going on with all speed; down 4 fms.; the lode is composed of gossan, pyrites, and spots of copper ore. Everything is being done to forward the working of the mine.

**GREAT CRINNIN.**—E. Shaw, W. Woolcock, Dec. 28: The sumpmen's stopes in the 80, east of Union shaft, are valued at 7s. per fm. We have one pitch working by eight men, at 12s. in 1s. West of Cornish's shaft, in the 24, valued at 8s. per fm.; and one pitch working in the same level, east of old sump shaft, by four men, at 13s. 4d. in 1s., valued at 6s. per fm. One pitch working east of old sump shaft, by two men, at 13s. 4d. in 1s., valued at 7s. per fm. Two pitches working east and west of Catherine's shaft, in the 17, by four men, one at 13s. and the other at 13s. 4d. in 1s., valued at 15s. per fm. One pitch working on the middle lode, east of Catherine's shaft, in the 17, by four men, at 13s. in 1s., valued at 5s. per fm.; and four pitches working in the 10, 20, and 30, east of Daniel's shaft, by 12 men, at 13s. 4d. in 1s., valued on an average of 3s. 6s. per fm.

**GREAT SOUTH TOLGUS.**—J. Daw, Dec. 30: The lode in the 80, west of new shaft, is 1½ ft. wide, producing 1 ton of copper ore per fathom. In the 60, on the south part, no lode has been taken down in the past week. In the 40 the lode is 2 feet wide, producing 3 tons per fathom. The lode in the rise in the back of this level is 1 foot wide, producing a ton per fathom. In the 30 the lode is 1½ ft. wide, producing 2 tons per fathom.

**GREAT WEST SORTIDGE.**—J. Richards, Dec. 31: There is nothing new.

**GWYDYR PARK CONSOLS.**—H. Rawson, Dec. 31: In driving west at Cross Mawr I am unable to report anything new at present. We have cut through to the hanging side of the lode, and I think we shall have easier ground to drive. We have broken down the lode separate; it will, therefore, be less trouble to dress the ore.

**KELLY BRAY.**—J. James, Dec. 28: There has not been any lode taken down in the 135 east since last reported on. The lode in the pitch in back of the 115 west is about the same value as it has been for some time past, worth at present 20s. per fm. The lode in the 45 west is still strong and kindly, producing more ore than it has for the last several fathoms in driving; here we have got six men, in order to get up the lode in the 45, as it is a little possible to displace it. The winze in bottom of the 35 west has been sunk about 7 fms. below the level. The lode in the stopes in back of the 35 is worth 8s. per fm.—Eastern Mine: Watson's engine-shaft is sunk 5 ft. below the 40 during the past week. The ground in the cross-cut is still favourable for driving, and water springing from the end very strong, showing indications of a lode not far ahead; we have driven 3 fms. during the past month. All other parts of the mine are as previously. Our sampling for December will be about 110 tons of copper ore.

**LADY BERTHA.**—J. Metherell, Dec. 31: There is no particular alteration in the appearance of the mine since last report. Last Thursday the following bargains were set:—A trip-plat to be cut in the 30, to put in collar, &c., as per bargain, 12s. by six men. The 30 to be driven west by six men, stented 3 fms., at 10s. 10s. per fm.; the 30 to be driven east by six men, stented 3 fms., at 10s. 10s. per fm. The 30 to be driven east by six men, stented 2 fms., at 10s. per fm. Burn's rise, in the back of the 20, east of Moyle's shaft, by four men, stented 2 fms., at 6s. per fm.; we shall take down the lode here next Tuesday. The 20 to be driven west by four men, stented 2 fms., at 7s. 10s. per fm. Hooper's rise, in the back of the 20, west of Moyle's shaft, by four men, stented 3 fms., at 6s. per fm.; we shall take down the lode here some part of next week. All the filling, tramming, landing, and to work the machine, by four men, at 14s. for one month.







**The Mining Market: Prices of Metals, Ores, &c.**

**METAL MARKET.** *London, January 1, 1888.*



old ores—as published in our last Journal—with that to the end of Sept., with three or four exceptions, the mines generally have sold less now than they did then. We do not, therefore, anticipate any further drop in the standard; on the contrary, look for an improvement at a very early date; for, in 1852, when copper was at the same price as it is now, the standard was considerably higher than that at the last ticketing.

One other subject requires the attention of shareholders at this critical moment, and that is the prompt payment of calls in the progressive mines, many of which must break down otherwise, and prove a total wreck; whereas a trifle further time to fully develop, and additional funds to meet the costs, are likely to repay the shareholders with interest for all their anxiety and outlay.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the month ending November 30, and also as compared with the corresponding month of 1856; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE MONTH ENDING NOVEMBER 30.			
	1856.	1857.	Increase.
Coal and culm	£ 106,547	£ 233,514	£ 56,927
Hardware and cutlery	371,564	315,092	56,472
Machinery:—Steam engines and parts	£ 191,516	£ 44,694	
Other sorts	172,349	250,262	21,913
Total	£ 841,916	£ 863,562	£ 21,646
Less decrease, hardware			56,472
			£ 21,174
Metals:—			
Iron—Pig	£ 119,802	£ 108,919	£ 21,883
Bar, bolt, and rod	454,738	388,892	65,846
Wire	23,591	31,952	8,361
Cast	73,216	60,429	12,787
Wrought	329,410	321,454	7,956
Steel, unwrought	70,995	39,199	31,796
Copper—Unwrought	5,246	104,338	99,092
Sheet, nails, &c.	159,729	212,494	52,765
Wrought	15,391	212,494	197,103
Brass	14,415	25,613	11,198
Lead, pig, sheet, shot, &c.	40,899	33,390	7,509
Lead ore, litharge, &c.	15,818	17,381	1,563
Tin, unwrought	17,555	59,392	41,837
Tin-plates	135,260	70,973	64,287
Grand total	£ 2,399,808	£ 2,176,409	£ 223,399
Decrease—iron, 95,086; steel, 31,768; lead, 23,377; tin, 82,842			223,399
Balance—decrease			£193,399

The following dividends have been declared during December:—

Mines.	Per share.	Amount.
Lincoln	£0 5 0	£375 0 0
West Seton	0 0 0	3200 0 0
Isle of Man	0 0 0	2500 0 0
Wheal Mary Ann	0 0 0	2304 0 0
Wheal Basset	0 0 0	2048 0 0
Great South Tolgus	0 0 0	1500 0 0
Eyam	0 0 0	1400 0 0
Lisburne	0 0 0	1200 0 0
Alfred Consols	0 0 0	1024 0 0
East Daren	0 0 0	900 0 0
Fulmer	0 0 0	886 0 0
Collins	0 0 0	800 0 0
Exmouth	0 0 0	712 0 0
Cwmystwith	0 0 0	640 0 0
Botallack	0 0 0	600 0 0
Calstock Consols	0 0 0	507 10 0
Bedford United	0 0 0	400 0 0
East Pool	0 0 0	384 0 0
Total		£24,816 0 0

At Redruth Ticketing, on Thursday, 3745 tons of ore were sold, realising 22,417. 1s. 6d. The particulars of the sale were—Average standard, 1237. 3s.; average produce, 77; average price, 6d. 19s. 6d.; quantity of fine copper, 265 tons 13 cwt. The sale on Thursday will be 3492 tons.

At Liverpool, on Tuesday, Mr. Lewis sampled 112 tons of Canadian copper ore, and 25 tons of Chilian ore and regulus, for sale on Jan. 8.—On the same day, Messrs. Ross Brothers sampled 57½ tons of copper ore, ex Augusta, for sale on Jan. 12.

The arrivals at Swansea include—From Cuba, 600 tons of copper ore.

At East Pool Mine meeting, on Monday, the accounts showed—Balance last audit, 9s.; ore sold Oct., 1890. 1s. 7d.; 1890. 1s. 7d.;—Mine costs and merchants' bills, Oct. and Nov., 1890. 3s. 6d.; leaving balance in favour of adventurers, 321. 7s. 1d. A dividend of 320. (21. 10s. per share) was declared.

At Calstock Consols Mine meeting, Dec. 23 (Mr. Wm. Dowey in the chair), the accounts showed—Balance last audit, 595. 6s. 6d.; fines on forfeited shares, 17. 1s.; ore sold, 677. 13s. 7d.;—Mine costs, merchants' bills, and Ducky dues for Sept., 2301. 6s. 4d.; Oct., 187. 15s. 3d.; leaving balance in favour of adventurers, 847. 2s. 6d. A dividend of 507. 15s. (3s. 6d. per share) was declared. In the estimated accounts of receipts and payments to be made before the meeting in March next, the balance in favour of the mine, after payment of the dividend, was 754. 7s. 6d. Capt. Collum's salary was increased from 51. 5s. to 71. 7s., and Captain Jennings' from 51. 5s. to 61. 6s. per month. Capt. W. B. Collum and Dr. Dunstan reported that the engine-shaft was sinking in favourable ground to a 24 fathoms level, which they expect to reach by the end of February. Should the lode continue as it is in the 12 fathoms level, about 5000. worth of ore will be laid open between the two levels, at a distance of only 17 fathoms east of the engine-shaft. In the 20, above said, they were opening tribute ground, and hoped shortly to see the levels filled with able and profitable labour. On Tuesday they sampled 100 tons of good quality ore, and calculated the next two months would return 160 tons, worth 1100. at a cost not exceeding 500. and they anxiously look forward to the time, which they believed was not far distant, when the dividends would be increased.

At Wheal Arthur meeting, on Thursday, the accounts showed—Balance last audit, 5247. 12s. 6d.; calls received, 6892.; black tin, 937. 6s.; copper ore and carriage, 2002. 15s. 1d.; 1891. 13s. 9d.—Mine costs and merchants' bills, Oct. and Nov., 5351. 12s.; merchants' bills, August and Sept., 1721. 4s.; London expenses, 431. 15s. 3d.; Wheal Edward, 351. 5s. 3d.; leaving balance in favour of the mine, 4307. 6s. 6d. The reports from Capt. Pope and T. Carpenter were read, the committee and auditors re-elected, and resolutions passed to enforce payment of arrears of call through the Stannaries Court, and to work the eastern part of the mine, by means of flat-rods attached to the engine. In the course of the proceedings, the Chairman announced the satisfactory termination of the question with the Wheal Edward Company, and the reduction of the dues by the Duchy of Cornwall from 1-15th to 1-30th, during pleasure.

At Devon and Courtenay Mine meeting, on Dec. 22 (Mr. W. B. Harvey in the chair), the accounts for Oct. and Nov. showed—Balance last audit, 197. 9s. 9d.; mine cost, 239. 2s. 3d.; merchants' bills, 117. 13s. 10d.;—By call, 871. 12s. 6d.; sales of ore, 75. 7s. 2d.; leaving debit, 137. 6s. 2d. A call of 1s. 6d. per share was made. Capt. T. Bawden hopes the next sampling will be 25 to 30 tons, worth about 1200. A small parcel of lead ore, valued at 300., is on the mine.

At South Wheal Consols meeting, on Tuesday, the accounts showed—Balance last audit, 144. 5s. 7d.; mine cost, Sept., 137. 13s. 1d.; Oct., 161. 11s. 6d.; merchants' bills, 224. 18s. 3d.; engine, boiler, &c., 500. 11s. 5d.;—By call received, 800. 1s. leaving balance against adventurers, 358. 8s. 7d. A call of 30s. per share was made. Captain Enoder Higgins reported that Marriot's shaft was now 3 fms. below the adit level—sinking by eight men, at 22. per fm.; the lode in this shaft was 5 ft. wide, composed of spar, prisms, gossan, and occasionally spots of ore, of a very promising character.

At Carnyorth Mine meeting, on Dec. 14, the accounts showed a balance against adventurers 598. 10s. 10d. The expenditure for July, Aug., and Sept., was 2410. 5s. 5d., and the tin sold amounted to 2443. 9s. 6d., showing a profit on the quarter of 331. 4s. 1d. Capt. John Carthew, Wm. Trembath, and John Wallis, reported that they considered the discoveries recently made were most excellent. Mr. Richard Pearce also reported that they had erected machinery at an expense of nearly 4000. without calling upon the shareholders for a single shilling, and it was only the fall in the price of tin that caused them to be in debt.

At Wheal Sidney meeting, on Dec. 23 (Mr. W. T. James in the chair), the accounts for Oct. and Nov. showed—Mine cost, 437. 4s. 9d.; merchants' bills, 1051. 5s. 9d.; dues, 291. 12s.; over estimate for tin in last account, 981. 11s. 8d.; 7051. 17s. 2d.—Balance last audit, 2387. 15s. 9d.; arsenic, 281. 2s. 6d.; estimated value of tin sampled, 3000.; leaving debit, 1191. 17s. 11d. In common with other mines, Wheal Sidney has suffered by the fall in the value of ore. The upper stopes have not yielded so well, and the increase of water in the bottom level has retarded operations; but the machinery and surface works are progressing satisfactorily.

At Wendron Consols meeting, on Dec. 22, the accounts showed—Balance last audit, 561. 13s. 3d.; tin ore sold, 3345. 5s. 7d.;—Labour cost, Aug., Sept., Oct., 2500. 0s. 4d.; merchants' bills, 971.; rent of stamps, 481.; Stannary and lord's dues, 303. 5s. 3d.; leaving balance in favour of mine, 178. 15s. 5d. Capt. T. Bray, R. Perry, and E. Jenkin reported very fully on the workings, and stated that there were 11 pitches, varying from 5s. to 13s. 4d. in 11. Persons employed, 168 men, 106 boys and girls; in all, 284. The great reduction of tin, and the necessary operations at Hill's shaft, had induced them to raise less tin; but the quantity had exceeded the former quarter. If considered prudent, the quantity could be increased, and the merchants' bills would be much less during the next quarter.

At Tregagle Moor Mine meeting, on Monday, the accounts showed—Balance last audit, 117. 7s. 6d.; mine cost and merchants' bills, Sept., Oct., and Nov., 581. 18s. 8d.—700. 6s. 1d.—Call received, 641.; leaving balance against adventurers, 61. 6s. 1d. A call of 5s. per share was made.

At Wheal Damsel meeting, on Dec. 22, the accounts showed—Mine cost and merchants' bills, from Feb. to Nov., 5891. 11s. 7d.—Call made March last, 2360. 1s. 6d.—Call received, 932. 5s. 3d.; leaving balance against adventurers, 1534. 6s. 4d. A call of 5s. per share was made.

At Respryng Mine meeting, Dec. 21, it was resolved that the adventure should be divided into 4096 shares, and a call of 1s. per share was made. Mr. Wm. Tregay was appointed captain, and Mr. Henry Willis, of Plymouth, purser. Capt. Tregay reported that the depth yet attained was only 16 fathoms from surface where the only lode yet worked upon was very productive. The engine-shaft had commenced sinking below the 16 fm. level.

At Copper Hill Mine meeting, on Tuesday, the accounts showed—Balance last audit, 731. 4s. 3d.; mine cost and merchants' bills, Oct. and Nov., 1818. 0s. 6d.—2300. 4s. 9d.—Ore sold Nov. (less dues), 803. 7s. 6d.; materials sold, 851. 19s. 4d.; calls received, 12801.; leaving balance against mine, 397. 17s. 9d. A call of 3s. per share was made.

At Lambeth Consols meeting, on Monday (Mr. W. Hicks in the chair), the accounts showed balance against the mine 430. 13s. A call of 3s. per share was made. This set is east of Trelawny and Mary Ann Mines, in juxtaposition to the former, and possesses several parallel lodes similar in character and appearance to those now richly-productive mines. Since the meeting an important discovery has taken place of a north and south lode at the shaft, 30 ft. wide, of a very good appearance, composed of barytes, fluorine, and good spots of lead.

At Wheal Julian meeting (Mr. Hicks in the chair) the accounts showed a balance against the mine of 263. 2s. 4d. A call of 3s. 6d. per share was made. Capt. R. Williams reported that the engine had been erected, shaft made and secured, and other necessary arrangements for its spirited prosecution of the mine. They were sinking between the main lode and the counter, which form a junction a little to the west of the shaft; the latter of these was worth 301. per fm. for tin, and the main lode, which is very large, produced stamping work of good quality. They might calculate on having a very rich piece of tin-bearing ground for 100 fms. in length. The engine was of sufficient power to drive the mine. The machinery for stamping and all the requirements for dressing were on the mine and paid for, so that full and satisfactory proof can be given of very little further expense.

At Tolvadden Mine meeting, on Monday (Mr. A. Bennet in the chair), the accounts were passed, and in answer to a question, it was stated, from the prospect of the mine, they did not think it necessary to make a call, as when the new shaft was completed, which would be in about three weeks, they would be in a position to increase the returns, and soon clear the books. Capt. G. G. Bennett and F. Gundry reported that the mine was looking well, and the new engine-shaft working very satisfactorily.

At St. Austell Consols general meeting, on Tuesday (Mr. J. Dowson in the chair), the accounts showed—Balance last audit, 1091. 13s. 2d.; calls, 314.; received for black tin, 4789. 2s. 4d.; copper ore and carriage, 213. 5s. 4d.; for nickel and cobalt ores, 78. 13s. 9d.;—6203. 15s. 7d.—Mine cost, merchants' bills, and lord's dues, 5472. 13s. 2d.; leaving in hand, 731. 3s. 3d. The estimated assets for two months amounted to 2181. 3s. 5d.; the estimated liabilities, a large portion being for new machinery, to 4024. 17s. 3d.; call of 6s. per share was made.

At Wheal Zion meeting, on Thursday (Mr. T. E. Stubbs in the chair), a report was read from the agent, Captain J. T. Phillips, which stated that in the 30 feet the lode is 4 feet wide, of a most kindly appearance; a leader in the middle of the lode, about 3 ft. wide, carries a great deal of mundle, with copper ore, worth of the latter about 1 ton per fm. The 50 west has been driving through very kindly ground, producing a small quantity of copper ore, from 1 ft. to 18 in. wide, going down nearly perpendicular. In the 80, as far as we see, this lode is very small, but occasionally showing stones of copper ore. In the 50 east the presence of foul air has prevented the workings. In driving the last 10 fathoms in the 65 east, the lode has shown a decidedly improving appearance in its general character. The gibe adit is about 8 fms. deep, driving west at 32. per fm.; the lode is from 18 in. to 2 ft. wide, composed of quartz, peach, and mundle, with a little gossan; occasionally we find a few particles of copper ore. The south lode in the 65, about 30 fathoms to the west of Richards' shaft, is shortly expected to be met with. The cost will be about 3000. per month, with small quantities of copper ore to assist in meeting these expenses. The accounts showed—Balance last audit, 1011. 7s. 1d.; sundry liabilities, 401. 15s. 1d.; labour cost for four months ending Oct., 812. 19s. 1d.; merchants' accounts for the same period, 831. 10s. 1d.; royalties, 22. 14s. 9d.; interest and discount, 71. 7s. 8d.; 3217. 0s. 11d.—Arrears of calls, 273. 1s. 1d.; call made August 29 (less arrears), 742. 7d.; copper ore sold, 424. 14s.; carriage of ore, 631. 7s. 2d.; leaving balance against the mine, 572. 9s. 9d. It was resolved that the names of those gentlemen who were in arrears of calls should be handed over to the merchant creditors. The appointment of Mr. Dunsford as secretary was confirmed. A letter from Mr. Henry Dalloway, of Bath, was read, resigning his seat at the board on account of ill health. After a lengthened discussion as to the prospects of the mine, in which Mr. Price expressed his want of confidence in the property, and Mr. R. Hodgson and the Chairman the contrary opinion, in order to meet the current expenditure for the next three months it was resolved that a call of 5s. per share should be made payable forthwith. Messrs. Bryant, Hodgson, St. John Medley, Smith, and Stubbs, were elected a committee of management until the next meeting. A vote of thanks to the Chairman terminated the proceedings.

At Wheal Guskul meeting, on Monday (Mr. A. Golett in the chair), reports were read from Capt. John Dale and James Richards, highly satisfactory as to the prospects of the mine. The accounts showed a balance against the mine of 1377. 5s. 10d., and a balance of liabilities over assets of 594. 13s. 2d. Dr. Ayer, Messrs. A. Golett, and G. Law were elected a committee of management. A call of 2s. 6d. per share was made.

At Boiling Well Mining Company meeting, on Monday (Mr. Boyle in the chair), the accounts showed balance in favour of adventurers 541. 12s. 3d. The committee of management were re-elected, and the proceedings, which were fully reported in another column, terminated with votes of thanks to the Chairman, committee, and secretary.

At the Holmbush Mining Company, on Wednesday (Mr. Pilcher in the chair), the accounts showed a balance against adventurers of 2450. 6s. 6d.; and in the estimated accounts to Dec. 24 a balance against the mine of 1577. 15s. 2d. The proceedings, which are reported in another column, terminated with a vote of thanks to the directors.

At South Dolcoath and Carnarvon Consols meeting, on Tuesday, the accounts showed—Ore sold, 547. 10s. 6d.; calls received, 635. 5s.;—709. 15s. 6d.—Balance last audit, 1337. 5s. 2d.; mine cost and merchants' bills, July, 1321. 10s. 4d.; Aug., 149. 13s. 4d.; Sept., 155. 17s. 11d.; Oct., 124. 14s. 8d.; sundries, 9. 1s. 2d.; leaving balance in favour of mine, 18s. 9d. A call of 2s. per share was made. Capt. Wm. Roberts reported upon the operations at the mine.

At North Wheal Wrey meeting, on Wednesday (Mr. P. Watson in the chair), the accounts showed—Balance last audit, 719. 11s. 4d.—Labour cost, Sept., Oct., Nov., 3051. 8s. 8d.; calls credited, in error through purser, 631. 12s.;—419. 2s.—Calls received, 360. 10s.; ditto received since last meeting, 44. 10s.; leaving balance against mine, 444. 2s. The statement of liabilities and assets showed arrears of calls, 690. 15s.; cash at bank, 521. 18s. 5d.—533. 13s. 5d.—Merchants' bills, 520. 6s. 6d.; balance brought down, 442. 2s.; leaving balance in favour of mine, 89. 5s. The financial position of the company was fully considered, and after the examination of the claims against the mine, which had been withheld at former meetings, it was thought advisable the shareholders should be in possession of the dates before any resolution was made, and that the secretary be requested to prepare a detailed statement of the several liabilities made up to date of each general meeting held during the last 18 months. Capt. W. Bettis reported fully on the several workings; and from the manner in which they were carried out, the utmost economy was used.

At the College Mines meeting, on Wednesday (Mr. D. G. Acock in the chair), the accounts showed—Balance last audit, 2388. 7s. 6d.; lead ore sold, 593. 18s. 3d.—2384. 5s. 9d.—Mine costs from Oct. 1856 to Nov. 1857, 2750. 11s. 6d.; leaving balance in favour of mine, 233. 14s. 3d. The outstanding liabilities are merchants' bills unpaid, 116. 15s. 5d., to meet which there is cash at bankers, 123. 1s. 2d., and arrears of calls, 227. 5s. 6d.; leaving balance as above. Capt. A. Braithwaite and B. Tucker reported that their wheel, pumps, and other machinery, are in good working order; their tribute department improved last week; they had raised since previous report above 4000. worth of lead ore. Although some of the ends were not looking so well at the present time, the prospect of the mine, on the whole, is more encouraging.

At Kenegry Mine meeting, on Dec. 22, the accounts showed—Balance last audit, 351. 7s. 5d.; mine cost, July to Nov., 407. 17s. 3d.; merchants' bills, 247. 16s. 10d.;—1061. 1s. 2d.—Calls received, 512.; leaving balance against adventurers, 493. 1s. 3d. A call of 3s. per share was made. Capt. Matthew White and Stephen Osborne reported that they had 18 men and three boys working underground, 12 of whom were breaking ore. The had 20 tons of copper ore broken and drawn to surface, and had just commenced to dress it. They considered the prospect of the mine quite equal to expectation.

Hington Down Consols sampled, on Wednesday, 240 tons of average quality copper ore.

Bedford United Mine sampled, on Tuesday, three parcels of ore, making together 207 tons, computed.

Collacombe Mine sampled two parcels of copper ore—No. 1, 79 tons; produce, 7. No. 2, 56 tons; produce, 5½.

The Devon Great Consols have reduced their last sampling by 1000 tons, and their labour cost 10000. per month; and in the same proportion several other mines returning largely, in Cornwall, are doing the same.

From Lelant Consols we learn, from Captain Wm. Richards, that there is an improvement in the 60 driving east. They have seven pairs of men working on tribute, averaging from 11s. to 16s. in 11. They expect to reach the Gry and Wheal Kitty lodes in three months.

At Eaglebrook, Capt. Sponce reports the prospects are very cheering. The Great Wheal Vor committee of investigation (appointed at the last general meeting of shareholders) met on the mine on Tuesday, the 5th inst.

The Wicklow Copper Mine Company have convened their ordinary half-yearly meeting for the 14th inst., at Dublin; a special extraordinary meeting will be held immediately after, to consider the advisability of bringing the company under the Joint-Stock Companies Acts, 1856-7, and to pass the necessary resolutions.

In the Foreign Share Market, during the week, a decided improvement has taken place, and which in some measure may be accounted for by the money market becoming easier, and from the low price which many of the mines were to be bought at. A very considerable business has been transacted in United Mexican, leaving off at 4½ to 4¾. From the advice received yesterday, a very satisfactory result will be obtained, and on the arrival of the next mail, these shares will be very considerably improved in value. St. John del Rey has advanced in price, leaving off at 11 to 12. No report having been received from the mines, the rise can be only accounted for by the fact that foreign stocks have been below their value, and that many who know their worth will always invest at low prices. Marquette has been more enquired after, leaving off at ¾ to ¾; the returns from Santa Ana being the largest yet received. Strathalbyn, very little doing; a meeting is called for the 6th inst., for the purpose of raising additional capital, which will be ample to bring the mine into a prosperous state of working. Sobre shares have been freely dealt in—present price, 30 to 41. Copiapo shares have been firmer, leaving off at 11½ to 11¾. Santiago, 1½ to 1¾. The report received yesterday being considered more favourable. Other descriptions of foreign stocks were quiet.

The Strathalbyn Mining and Smelting Company have issued the report to be presented to the extraordinary general meeting, to be held on Wednesday next, from which it appears that the accounts made up to Sept. 28 showed assets amounting to 5071. 8s. 4d., and liabilities 4499. 11s. 2d. Several reports are inserted, which have already appeared in the *Mining Journal*, and the directors propose to raise 6000. upon mortgage of the property.

From Jamaica, the mining intelligence (to Dec. 11) is still very favourable. The Elterre and Bardowick Company possess a mine of extraordinary promise at Salisbury Plains. As yet the workings are young, but already in sinking on the lode branch inclining from 3 to 5 ft. of solid metal, has accompanied the work, and at the latest accounts the lode was yielding 3 tons per fm. of ore worth, as it is rated, from 14 to 16 per cent. of product.—At Charing Cross, the property of the Wheal Company, the works are at present confined to driving the deep cross-cut by which the lode will be intersected at a depth of 85 fms.—the lowest level attainable without machinery. This mine has carried a branch of ore in all its five levels, and there is no doubt of its value in depth.—From Stamford Hill, the accounts are ex-

trêmement favorable; the directors of the Clarendon Consols, acting on the advice of Captain Tregony, have taken measures to prosecute their valuable property in the most effective manner. Preparations are being made for the erection of the steam-engines necessary to sink a shaft, and there is every reason to believe that Stamford Hill will ere long be a mine of great value.—The works at Hope (lead) are going on most favourably. Some superb specimens of galena have lately been extracted; one stone weighed upwards of 200 lbs. of solid ore.

Our Hull correspondents (Messrs. T. W. Flint and Co.) report that the share market has shown considerable animation during the week, much more so than for some time past. Had this not been a period (the end of the year) when people, generally speaking, are averse to commencing new operations, the improvement would doubtless have been of a more marked character. The feeling for the early part of 1858 is very hopeful, and we think reasonably so.

Our Sheffield correspondent (Mr. George Wilson) reports that business has been quiet in the mining share market this week, with the exception of Chapel Dale, which have been sold several times at 51. premium. In our local stocks, bank, gas, and water shares are in fair demand.

The Isthmus of Suez question appears to be very far off from a solution. The French Government agrees that the canal should not be made unless in pursuance of a convention made by all the great powers; and as it is understood that England continues to withhold her assent to the project, it may be considered adjourned sine die.

The Minister of Commerce in Prussia has charged a commission of scientific men and engineers to ascertain what inconvenience may be caused by atmospheric influences in the transmission of telegraphic despatches, and to propose a remedy.

Early in the present year the MINING JOURNAL will be printed on a superior paper from a new type, which is being cast expressly for the purpose. Several improvements in the arrangements of the Journal are contemplated, and the publication more frequently of Supplemental Sheets will enable us not only to avoid delay in the insertion of Correspondence, but also to publish much additional matter, of practical and general interest.

The TITLE and INDEX to the TWENTY-SEVENTH VOLUME of the MINING JOURNAL will be published next week.

PEN-AN-DREA MINES.—The letter from Mr. W. P. Cardozo, reaching us only this morning, is unavoidably postponed until our next Journal.

## LEAD ORES.

Sold on the 26th December.			
Mines.	Tons.	Price per ton.	Purchasers.
Wheal Mary Ann	100	£26 7 6	T. Somers.
ditto	100	7 15 0	Sims, Williams, & Co.
Wheal Trelawny	80	22 7 6	T. Somers.
Sold on the 28th December.			
East Loggias	80	13 17 6	Newton, Kentes, & Co.
Cwmystwith	50	13 10 0	ditto
ditto	50	13 11 0	ditto
Sold on the 29th December.			
Tamar	60	15 5 6	Locke, Blackett, & Co.
Sold on the 30th December.			
Minera	112	13 11 6	J. W. Parker and Co.
ditto	38	13 5 6	ditto
Sold on the 31st December.			
Wheal Wrey Consols	60	15 3 0	J. Bibby, Sons, & Co.

## BLACK TIN.

Sold on the 19th and 22nd December.			
Mines.	Tons.	Price per ton.	Purchasers.
Gt. Hewas United	3 14 1 20	£260 0 0	£223 5 7—Carvedras.
ditto	0 17 1 21	48 15 0	42 10 0—ditto
ditto	10 9 1 12	60 0 0	628 1 3—Treshellan.
ditto	1 11 0 22	51 7 6	80 2 7—ditto
Sold on the 21st December.			
Wendron Consols	14 6 3 25	770 15 4	—
Sold on the 23rd December.			
Pen-an-drea United	4 1 2 2	60 0 0	244 11 0—Bolitho.
ditto	4 6 1 24	55 15 0	241 0 0—ditto
ditto	1 13 2 1	39 0 0	65 7 0—ditto
Sold on the 24th December.			
Wheal Bal	3 4 2 27	55 15 0	291 19 0—



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## Notices to Correspondents.

\* So much space being occupied by the Annual Review has necessarily interfered with our arrangements—several leading articles, many letters from correspondents, miscellaneous scientific information, and various mining reports, being unavoidably omitted. Those interested must attribute the non-insertion of their matters to the mere want of space, while we shall endeavour to bring up the arrears of news and facts in our next Journal.

**RIGHT OF DEFENDERS TO VOTE AT MEETINGS.**—As the question of right of voting by shareholders in Cornish mines who happen to be defaulters is a very important one, and the subject in dispute at East Wheal Rose on Dec. 23 having never yet been tested in our courts of law, I think the matter deserving the earnest attention of everyone interested in mines lying within the jurisdiction of the Stannaries, as well as your Journal, to which we all turn for advice when in difficulties. It may be right to state that there is no resolution entered in the cost-book of East Wheal Rose to prevent a shareholder whose cost or calls remain unpaid from voting; and, so far as I am aware, it is the first instance on record, under similar circumstances, where an advertiser's vote was declined because his calls were unpaid—on the contrary, I have witnessed at our mine meetings the right of voting accorded to those who were well known to be defaulters; and if this be the custom, will it not also make the law? I trust the question will attract the attention of some of your correspondents, who will give us the benefit of their knowledge.—A SHAREHOLDER, WHOSE CALLS ARE ALL PAID: Truro.

**GOLD IN CUMBERLAND.**—The shingle for miles along the coast abounds largely with quartz and granite boulders, some of which are more or less richly diffused with pure virgin gold. There is not a boulder, street, nor house here but contains the glittering ore in sight, and the debris in millions of tons is pure attritured magnesian and carboniferous limestone, with some indurated trap. I think the ironmasters might at least convert their blast furnaces into limekilns, for calcining and converting this shingle into a useful and rich manure.—*Taswellia: Workington.*

**PASTORAL METAL MAKING.**—"Alasoo," in your last Journal, gives an account of Mr. Gabriel Plattes' process of obtaining gold from iron and copper, but, although it is evident that he does so to show the impossibility (I think I am fully justified in using the word) of any of the new alchemical methods proving remunerative, I think many might conclude that, as the extraction of gold was not impossible, improvements would enable inventors to overcome the difficulty. But I am sure no chemist will deny that, had Mr. Plattes substituted charcoal or distilled water for his iron and copper, the yield of gold would probably have been equally great; for, like the gentleman who asserted in your Journal that muriatic acid was a compound of oxygen and chlorine, he labours under a mistake as to how his chemical results have been arrived at; and because he finds gold in a vessel which has upon some former occasion, had iron in it, he presumes that iron must contain a certain percentage of gold. But Plattes prepares his regalia with antimony (which is liable to contain gold), and treats it with quicksilver and silver (each of which is again likely to contain gold). He used three or four distinct charges of quicksilver, and obtained but a few grains of gold, "which did not pay the cost of labour." Now, as I think mining is looked upon as far less profitable than it really is, in consequence of the knavery of some connected with it, I think too much cannot be said against the quacks who are endeavouring to induce the opinion that gold can be extracted from English ores at a profit by the use of some novel process, neither chemical nor mechanical.—*P.S.*

**MINEING IN THE ALPS.**—Can your Paris correspondent render any information as to the progress of mining by the Compagnie des Mines des Alpes? Also with reference to the dividends being paid, if any, and the law by which they are guided? As it was rumoured that English capital would be called for to further develop these mines, I think it should be made known what power the company has to raise additional capital.—*INQUIRER.*

**TEX TURBINE.**—In your last Journal, "N.E." states that, amongst the most successful manufacturers of turbines are Messrs. Whitelaw and Stirrat, and Mr. Fournay; but in this I entirely disagree with him. When the turbine was first introduced it was almost inapplicable to low falls, in consequence of the great wear and tear on the pivots and foot-steps on which the machine revolved, and which caused an almost constant necessity for repairs. This being the fact, I think Messrs. Phillips and Darlington could not have been brought together acquainted with what had been done; since Messrs. MacAdam, of Belfast, have erected turbines in Ireland, which have been working regularly for years, without any repairs whatever, and even now there is no appearance of wear and tear. Another reason why I should not name Fournay as a most successful manufacturer is, that his turbine, where the quantity of water decreased in summer greatly below the maximum winter quantity, always failed in giving out the proportionate amount of power. Thus, if the fall was reduced to one-fourth, the power would be reduced to one-eighth. Now, Messrs. MacAdam have discovered how this defect can be remedied, and their turbines are so constructed that they suit the varying quantities of water, and give out the proportionate amount of power. With regard to the cost of the turbine, as compared with that of the ordinary water-wheel, its small size on high falls places it in this respect beyond all competition. On falls from 20 ft. upwards the cost of a vertical wheel increases rapidly, and on arriving at 50 or 60 ft. the expense becomes so great as frequently to prevent its use. The great water-wheel at the Laxey Mines, Isle of Man, which is on a 73 ft. fall, cost several thousand pounds. With the turbine the reverse takes place, for its size diminishes as the fall increases in height. On very low falls, although the advantage in cost is not so apparent, the property which the turbine possesses of being little affected by back-water renders it a more valuable machine, even at the same price; and, moreover, it has been proved that, on such falls, a turbine gives out at least one-fifth more power than one of the best vertical wheels. In the assertions I have made, Messrs. MacAdam and Co. will bear me out, and can, no doubt, add much interesting information to that here given.—*H.*

**MANGANESE.**—In the recent discussion which has been going on with reference to the manufacture of iron and steel by the pneumatic process, Mr. Mushet has several times referred to the fact of his using metallic manganese, which he appears to consider is the sole requisite for perfecting the Bessemer process. As he uses it so largely, of course he must be well acquainted with its manufacture, and cannot, therefore, have any objection to state his manganese process as fully as he has his steel process; and I am sure that if he can inform the world how to produce metallic manganese at a cheap rate, he will render as great service as can possibly result from his improvements upon the Bessemer process.—*F. H.*

**MANGANESE.**—M. de Maligny, in a recent Notice, said he had made arrangements for working his manganese mines in Dordogne; but I have not seen any other announcement, either of the mines being in work, or of the manganese being brought to market—on the contrary, I have heard that he is doing nothing whatever with them. If this be so, why does he not take measures to form an English company, with limited liability, as the demand in England for manganese would assuredly procure him support. Moreover, it is said that want of capital is the reason why they have so long remained in abeyance, and almost the sole reason; so that the necessity for the English company must be at once apparent; and as we see nothing of it, I presume he will neither work the mines himself, nor allow others to do it. Could he not transfer his interest on consideration of receiving 10 per cent. of the net profits realized? Many would accept these terms, and he himself would gain far more than at present.—*C. F.*

**CHOLLACOTT AND BUCKLAND CONSOLS MINES, AND THEIR MANAGEMENT.**—I never enter into details of business with anonymous writers, whether shareholders or not. The question alluded to, in reference to Wheal aderton, in your last Journal, by a Shareholder, is literally an untruth. No such statement ever appeared in your Journal with any signature. In conclusion, I beg to say that I do not want the favours of anyone, nor do I fear their frowns.—*JAS. CARPENTER, Aderton-cott.*

**COPPER SMELTING.**—Several instances could be cited where copper ore is smelted in England besides Swansea, as in Anglesea, Liverpool, and the Cheshire Works in Staffordshire. At Copiapo, they are about to smelt on the spot; the costs coaling there about 6l. per ton; while in Hamburg they pay 4l. to 5l. per ton for the ore and 15s. for the coal. The writer of the remarks alluded to ought to know something of the matter, having erected furnaces, reduced the ores, and refined the cake copper. The slags left at Bristol were rich enough to be re-melted, after several years had elapsed; and the failure at Hayle most probably arose from a want of combination. The writer will be happy to receive any information our correspondent may forward, and would suggest that it is desirable opinions should be based upon facts.

**FEDERATION, AND ITS MANAGEMENT.**—Observing a letter in your Journal of last week, signed H. Waddington, reflecting upon the management of this mine, I beg to ask, if he had seen anything egregiously wrong, why did he not point it out to the meeting of the local committee on Dec. 15? He himself, being one of that committee, must have had ample opportunity of bringing it forward, without reflecting improperly and invidiously on the power or manager. I cannot, of course, being simply a shareholder, know more of the concern than is laid before me at a general meeting of shareholders, unless I happen to go to the mine for the purpose of enquiry, which I frequently do, and must say that I have ever found the agents very civil and polite, and attentive to their duties. The accounts are as regularly kept, and as plain as can be found in any mine in the Cornubian, Devonian, or other district. With regard to the management, not being bred a miner, I am not competent to judge whether it is bad or otherwise. I can only say that, having lately greatly increased my interest in the concern, I am anxious to know what the error can be that has deprived us of dividends equal to 5000l. in the last year. If this be true, I trust we shall have at once a general meeting of shareholders on the subject. If, however, it exists only in Mr. Waddington's fertile imagination, we, as shareholders, need not be alarmed. It is simply an assertion made for the purpose of getting up the value of the mine, that he may pick up shares cheap, to add to the 1000 he pretends to represent, and the 10 he actually holds. I think, however, he has missed his aim: the committee, being composed of respectable men of business, and for the most part large shareholders, who really know what mining is, will never countenance so unjustifiable a step, taken by one of themselves, but speedily remove him from office.—*A SHAREHOLDER: Penryn.*

**THE BON ACCORD COMPANY.**—Can anyone give some information in reference to the proceedings of this company? Are the directors taking advantage of this, the winter season, and pushing their works forward now that labour is so cheap in the colony? We do not hear of their following the business habits of the Dun Mountain Company, whose engineer and miners have been out some time. Surely, the shareholders of the Bon Accord Company are entitled to know what is doing.—*A.*

**SAFETY LAMPS.**—A short time since you referred to a safety-lamp, invented by Mr. Mosard, as being very perfect, and recommended its general adoption. Can you or any of your correspondents inform me, if the mines they are in use, whether they have proved of the great utility you anticipated; and if they have, where they can be obtained? As I have seen a sample of this lamp, with which I was much pleased, and which appeared to me in every respect superior to Dubrule's, I am anxious for its success. I fear, however, as in many other cases, that there is a want of energy on the part of the proprietors, which reacts very prejudicially upon them. If greater publicity were given to the invention, I am sure that no lamp extant would be more used; and as to the infringement of Du rule's patent, I am convinced that any court of law would decide in Mosard's favour.—*Mines: Leeds.*

**MANUFACTURE OF GAS.**—From a friend at Paris, I learn that a gentleman of that city, who described himself as a miner, has taken out a patent for providing a substitute for gas from 70 to 80 per cent. of the coal used in the manufacture of gas, which gives, I might say, positive evidence that all miners do not attend mining schools, even on the Continent. The manufacture of a given quantity of gas with but from 20 to 30 tons, instead of 100 tons, would no doubt be a desideratum, and perhaps I should for this reason write in favour of his proposition; but the substitute is so extraordinary, that I could not pass it without giving your readers the opportunity of enjoying a smile at the expense of Mr. M. J. A. Mille (for that is the inventor's name). However, as he may perhaps have a large stock of the required materials on hand, he may yet have the advantage of me. His substitute, however, are—35 to 40 parts (out of 100) of the flowers or kernels of elm or other kinds of trees, and from 35 to 40 parts of the stones or kernels of all kinds of fruits; so that, unless he could supply the commodities himself, I fear his invention will long remain in abeyance.—*D. C. S.: Gracechurch-street.*

**BENGLA COAL COMPANY.**—"Old Subscriber."—There is no company under this name in London. The offices of the East India Coal Company are at Gresham House, Old Broad-street. Mr. H. Haymen is the secretary, and the meeting, which was fully reported in the *Mining Journal* of Dec. 12, was presided over by Sir T. Herbert Maddock.

**NOUVEAU MONDE MINING COMPANY.**—It might be to the interest of the holders of shares in this company to know something of their affairs before they surrender their rights to the few interested parties in Paris, to deliberate among themselves on the expediency of winding-up, as it appears they intend to do, at the meeting advertised to take place in Paris on Jan. 12 inst. It has been asserted at the office, 35, Wallbrook, that the directors in Paris hold exclusively a considerable number of shares; this may be true, although rumours to the contrary are prevalent. It is asserted also that the proceedings at the mines have been so favourable, that since the absorption of the company's funds Messrs. Taylor have made the necessary advances up to this time. Would it not be proper to ascertain the correctness of this assertion, and, at the same time, enquire as to the importance of the interest held in this country? It appears to me that a meeting in London to that effect would combine a double remedy to the preceding evil at Paris. In the first place, if our interest here prevails, a sufficient number of proxies might be used in Paris at the meeting to obtain new rules, giving us an opportunity here to investigate the proceedings at the mines and at Paris. This is the course followed by the Great Luxembourg Railway Company, the practical business being done in London, confirmed at the legal meeting at Brussels. If amongst your readers there are any sufficiently interested and influential to bring the matter forward, no doubt they would meet with support.—*A SHAREHOLDER AT A PREMIUM: Lyon.*

**PREVENTION OF SMOKE.**—I was glad to see Mr. Charles Wye Williams called upon for some explanation for his remarks upon the boilers of the *Leviathan*, and shall anxiously watch for them in your Journal. I have no doubt that he will be enabled to substantiate all that he has stated, but I must say that he should have accompanied his attack with his reasons for so doing; since, as the matter at present stands, Mr. Williams appears very much in the position of a dissatisfied meddler who is desirous of crying down everything but what he has done himself. This, I am sure, is a character which he has no ambition for. The gentlemen connected with the *Leviathan* have already had sufficient difficulties to contend with, and it appears needless for jealous parties to endeavour to cause them further annoyance by their gratuitous attacks, unless they can give ample reason for them, or suggest a remedy.—*M. S.: Liverpool.*

**LIMITED LIABILITY.**—"Subscriber" (Aberystwith) could not relinquish his shares unless the articles of association specially provided for relinquishment, but there would be no difficulty in transferring his shares. But in the event of the company being wound-up within a year from the time of transferring the shares, "Subscriber" will be deemed an existing shareholder, and be treated precisely as though he had not transferred them.

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, JANUARY 2, 1858.

On August 9, 1835, the first Number of the MINING JOURNAL was issued to the public. At that period, beyond the limits of the several localities, but little was known of mining enterprise; its great importance, as a national branch of industry, had never been rightly understood. To many it was a sealed book; while with others it was a prevalent opinion that, the capital advanced, but little else was required than to lay bare the surface of the earth, and returns would be immediately made, and those who were so fortunate as to obtain a share in any of these undertakings would speedily become rich. Ten years previously a mania, which has never been paralleled, existed for joint-stock companies, and any one who will refer to the prospectuses of the several associations concocted in 1825 will see that the ardour for speculation in that year was not confined to mere adventurers only, but that peers, bankers, and merchants of the highest standing and greatest respectability, all eagerly rushed to join in the scramble which was to enrich every one, with comparatively little labour, and at a cost which appeared ridiculous when the estimated profits were calculated. Much of the capital so embarked was invested in mines in the liberated colonies of Spain; tradition had spoken of the great wealth which that kingdom had derived from her American dependencies, and no tale, however exaggerated it might be, was disbelieved: it was then merely for the promoter to ask, and he could receive any amount of capital he desired. The feverish excitement was not confined only to these foreign speculations, but a great number were started in England.

Fabulous accounts were given of mines that had been abandoned on account of water, and these, it was stated, were so rich that if only forked returns could be made immediately; and although no records were kept, there were numbers of old men who could remember what quantities of rich ore had been left in the old shafts, backs, and levels when, for want of proper machinery, the former adventurers had been necessitated to abandon the undertakings. The year afterwards there were 44 of these existing; the capital for working them was 26,776,000l.; there had been advanced 5,455,1000l., their market value having fallen in a brief 12 months to 2,927,350l.; in the same period 16, with a capital of 5,585,000l., on which 400,900l. had been paid, were definitive abandoned. It is not our province here to allude to the failure of joint-stock companies promoted in that year for other purposes—their name was legion; we merely wish to point out how much capital was in so short a time wastefully expended in mining adventure.

Had at that period there been any authorised organ of the mining interest there is little doubt but that much of this money, which was so recklessly thrown away, might have been spared, and diverted into other and more legitimate channels of mineral industry, where it would have conferred a benefit on the districts where it was employed, augmented the national wealth, and have fructified for its owner. In the year 1835 speculative spirit was again directed towards mining, and this time the tendency was to English adventure: it was at this period the MINING JOURNAL appeared. The task of establishing such a periodical was one of no ordinary difficulty: apart from the novelty of the undertaking, it had to encounter the hostility of a number of those speculative individuals and "bal sellers," on whose calling publicity must necessarily inflict a heavy blow. Despite the obstacles to be encountered, and the difficulties to be overcome, the ordeal was successfully passed, and the Journal began to assume that pre-eminence as a class paper which it has now for so long a period maintained. Those who were really interested in mining soon perceived the utility of such a publication: to protect their interests, and disseminate information on all subjects appertaining to mining, and from the general body we have always received the most cordial co-operation. We have had but one object—the encouragement of mining enterprise, and a sincere desire to protect the public from the designs of unprincipled characters, who would, by spurious statements, induce it to embark capital in worthless undertakings.

In the year 1843 Mr. J. Y. WATSON published a Compendium on British Mining, in which he gave a *resumé* of the different mines at work, and pointed out how, where capital was judiciously laid out in mining adventure, it would return a fair profit to the speculator, and in some cases much larger than could be obtained in any other undertaking. The success of this work was such that the author was induced in the following year, through the medium of our columns, to continue the task he had undertaken, and with the present Number we publish his fourteenth Annual Compendium. It would be a work of supererogation for us to say anything in its commendation; the public have long acknowledged the utility and the merit of Mr. WATSON'S able Review, and nothing that we can add will enhance its value. Briefly this we can remark, that in the present year it is more copious than hitherto, and contains a great mass of sterling information, which should be read and studied by all who are interested in mining enterprise.

We will now briefly allude to our own labours, and this in a direction which for a considerable period was overlooked—in fact, we may say almost entirely neglected: we allude to MINING EDUCATION. It is useless here to refer back to the period when Sir CHARLES LEMON'S magnificent offer was rejected, by a combination of prejudice and ignorance; we do not wish to recite old grievances. We are aware there is much to be accomplished yet, and there is an ample field open for improvement. It is, however, a great satisfaction to know that all the preliminary obstacles are now entirely obviated, and that mining education is now firmly fixed on a solid basis, and must progress. In the year 1851, we published the lectures on the mineral products of foreign countries, delivered at the Great Exhibition; and since the Government School of Mines has assumed a local form and shape we have communicated abbreviations of the lectures which have been there delivered by the eminent professors appointed by Government for that purpose; while, at the same time, we have not forgotten to notice the progress of education in the local schools.

Our columns have always been open to free discussion. This we have allowed so long as it would serve any useful purpose, beneficial to our readers; but, at the same time, we have always denounced a wordy correspondence, more especially when it has tended to border on personality. Many valuable communications, from various talented correspondents, have appeared in the JOURNAL, which, if it had not been for this medium, would probably never have met the public eye. To all of those who have thus assisted us we tender our thanks, and trust that we shall receive their valuable co-operation for many years to come.

One of the most useful matters connected with mining has been the publication of the Mineral Statistics of Great Britain and Ireland, by Mr. ROBERT HUNT, Keeper of Mining Records. According to these, in 1856, the total value of the mineral produce was 30,602,322l.; while the market value of the metals and mineral products obtained from the furnace amounted to 37,783,021l. It is to be hoped that the proprietors of mines will see the necessity of affording this gentleman, in his arduous labour, every assistance, so that each year his valuable compilation may show the accurate progress of mining; while the preservation of records will tend to prevent much of that useless expenditure of capital which has so materially retarded British mining enterprise. From time to time these statistics have appeared in our columns, and we thus take the opportunity of adding our testimony to their value.

The years 1850-1851 witnessed the introduction of a host of speculations for the purpose of prosecuting gold mines in Australia and California; the present year has seen the extinction of nearly all, there being but one still dragging on a lingering existence; while, from the accounts that have lately appeared in our columns, we imagine that for the present "Gold in England" will be no more heard of, and that persons will embark in legitimate mining adventure, instead of these ephemeral schemes, which in no single instance have afforded a practical result.

Our task is nearly complete. We have now commenced the new year. The past one, during the last quarter, has been signalised by some severe disasters, but there have been no dark records brought against mining, as there have been with other undertakings. We by no means infer that all who are connected with mineral industry are so just in their dealings as they should be, but the generality of those connected with it are men of probity and honour. In many cases where unfortunate disasters have occurred, it has been owing to the shareholders having neglected their own affairs, and in instances entrusted them to the guidance of others—in cases to a single individual, who has combined all the offices in his own person, without any control or audit, thereby exposing such parties to great temptation. Let "One and All" each work in his proper sphere, and we shall then hear no further complaints of the insecurity of mining as a speculation, or its hazard as an investment.

With these remarks we conclude, trusting that 1858 will not be signalised, either at home or abroad, by any of the disasters of 1857, and that the new year which has just dawned upon us may, as it fairly promises, be more prosperous than its predecessor.

The returns of the Board of Trade, for the month ending Nov. 30, of the exports of articles, the produce and manufacture of this country, show a falling off, as compared with the corresponding month of last year, of 1,986,260l.; the total exports for the current year being 8,285,815l., and 10,272,075l. for Nov. 1856. The declared value of the exports for the eleven months, ending the same day, is 115,007,196l. for 1857, and 105,845,631l. for 1856, consequently giving an increase of 9,151,565l. in favour of the eleven months of this year. Of the decrease of 1,986,260l. for the month, no less a sum than 1,319,888l. is represented by the falling off in the value of the shipments to the United States alone, which is equivalent to about 66 per cent. of the entire difference in the exports of every description of produce and of manufacture. This consists of eighteen enumerated articles; and as all matters connected with the United States, as respect trade and commerce, are of such interest, and indeed importance, at this moment, it is well to give the different totals. The heaviest deficiency is in cottons, which show a difference, as compared with the same month of last year, of 352,594l.; linens follow to the extent of 203,916l.; salt is third, and gives a deficiency of 122,976l.; tin-plates rank next, in the amount of 93,128l.; haberdashery is fifth, and stands at 87,672l.; to this succeeds iron, to the value of 78,186l.; hardware and cutlery constitute the seventh in importance, being declared at 77,399l.; then comes mixed stuffs, such as flannels, blankets, carpets, &c., to the extent of 65,679l.; worsted stuffs are next in order, and represent 45,269l.; to which, in the tenth place, succeeds woollens, cloths of



all kinds, with a total of 41,862; earthenware and porcelain are the eleventh, and give, collectively, 36,847; steel stands next, at 36,189; silk manufactures follow with a sum of 21,590; oil seed is fourteenth, and is declared, in value at 18,142; beer and ale are next in order, and furnish a deficiency of 13,342; copper is the sixteenth, and shows a sum of 13,292; stationery is put down at 6700, and next in order; and lead forms the eighteenth, and last, of the items mentioned as constituting the general falling off, and gives a deficiency of 5049, which, with the addition of 357, was the declared value of the exports of this metal in Nov. 1856, the sum deducted constituting the entire value of the shipments of lead to the United States during the month of Nov. of this year. Of oil seed there was not a single consignment, or transmission on other account, so that the deficiency in this article is the value of the shipment of Nov. 1856. In two articles only is there an increase, and both to small amounts—namely, coals and culm, which furnish an excess of 3769, over November of last year; and cast-iron, which gives 4523, in favour of the same month of this year.

We must now draw the attention of our readers to those portions of these statistical returns which apply to articles more exclusively connected with the mining interests. The details, as usual, will be found in another column. The total exports under these different heads are declared at 2,176,409, for November of this year; and whereas the aggregate value of the same was 2,369,801, in Nov. 1856, it necessarily follows that this year shows a falling off to the amount of 193,392, as compared with the past. Hardware, iron, steel, lead, and tin, give a collective deficiency of 289,504; but as there is an increase this year over last in coals, machinery, copper, and brass, in an aggregate sum of 96,105, the balance deficiency is as stated.

In all former statements during the last twelve months, and when there has been continued excess of exports over the preceding periods, both as respects the month itself, or the proportion of the year included in the returns, we have shown that the value of the metallic productions of this country, in their crude or manufactured state, represented in value between one-fourth and one-third of the entire exports; but coming now to a reverse state of things, when the value of shipments of every kind are rapidly falling off, we find that metals give only 193,392, in the general total decrease of 1,986,260, or about 9 per cent. of the whole; whereas in the excess, as before mentioned, the proportion represented by the mining interests was from 25 to 33 per cent. It is, therefore, evident that this branch of British industry has not felt the commercial depression to any very serious extent; and as extensive orders are on hand for the completion of railroads and other large works in our different colonies and various foreign countries, there is every reason to expect that this slight decrease will be temporary. Indeed, we doubt much whether there has been any great amount of speculative shipments of metal or metallic manufactures; and however defective these returns from the Board of Trade may be in determining the prosperity of the country generally, they may be fairly considered as a good index of the position of the mining interests. The exports are solely of the mineral products of Great Britain, either crude or manufactured, therefore it is impossible to deny the fact that great benefit must ensue to the producer, although the smelters monopolise more than the lion's share: while it is equally an undeniable fact, that neither the miner nor the smelter speculates in consignments of the ore or the metal, so that however much shipments may be made by other persons, on the chance of meeting with a profitable market abroad, it is clear that no damage can accrue to those now closely identified with the mining industry of this country by improvident shipments of the speculator; but, as we have before remarked, we much doubt if speculative consignments of metals are made to an extent which would in any way disturb the market for such articles in the event of failure in these consignments.

Although there has been such a marked falling off in the value of the goods shipped during November, there has nevertheless been an increase in the tonnage of merchandise transmitted from our shores. In the same month of last year 2828 vessels sailed from the different ports of Great Britain, and conveyed a collective tonnage of 750,111 tons; whereas, during the same period of 1857 no less than 3261 ships have set sail, with an aggregate burden of 788,467 tons, of which 172,198 tons were forwarded to British possessions, and the remainder to foreign countries. With reference to the United States, this excess of ships and tonnage does not apply, for we find that only 101 vessels went forward to the Union during Nov., 1857, against 142 in Nov., 1856; and that the tonnage this year is 103,411, whereas it was 130,837 in Nov., 1856, or a deficiency of 41 vessels and 27,426 tons. For the eleven months of this year the general returns give 41,939 vessels, with a collective tonnage of 9,699,532, while for the same period of last year 38,867 vessels were employed in the conveyance of 9,001,755 tons, so that there is a comparative increase of 3072 vessels, and 587,777 tons in favour of this year.

Notwithstanding the advice received from our Australian colonies for several months past have spoken of a glut of goods in those markets, we find from the Government returns of the exports from the United Kingdom, that during the eleven months of 1857, ending Nov. 30, a marked increase has, nevertheless, taken place in all the different articles of shipment to these dependencies, with the single exception of soap, in which there has been a falling off to the extent of 39,964, as compared with the eleven months of 1856. The total value of the exports amount to 7,218,242, for the period mentioned of the year just passed, whereas, during the same months of 1856, the aggregate declared value was 5,396,429, being, consequently, a balance excess of 1,821,713, after allowing for the deficiency in soap as stated. Articles with which the mining interests are closely associated take the first rank, and furnish a total of 1,453,307, under the head of "metals"—that is, iron, lead, tin, and machinery, which is an augmentation over 1856 of 221,720. Next in importance as to value comes leather goods and saddlery, with an amount of 1,318,690, against 874,477, in 1856. Beer, ale, and spirits amount to 1,256,599, being an increase of 501,237; apparel and cloths give a total of 1,107,634, and an excess of 246,540; haberdashery and millinery furnish a sum of 707,553, which is 180,591, over 1856; linens, cottons, and mixed stuffs were forwarded to the value of 695,387, being an increase of 86,431; silk goods are declared at 184,922, an augmentation of 69,145; woollens amount to 114,390, which is 29,644, over the previous year; stationery gives 198,598, being an excess of 26,398; earthenware furnishes a total of 128,050, which is 43,155, over 1856; and oil seed, 33,103, which is an addition of 12,593, to the amount shipped in the eleven months of 1856. The value of soap in this period of 1857 was only 20,009, against 59,973, in 1856, and the deficiency is as stated at the commencement of these remarks.

We have several letters from correspondents on the question of gold production, as mooted in our remarks of last week, in reference to Mr. Squires's process for the concentration of oxides of the precious metal into globules. One is from an esteemed writer, "J. H. C." who asks, "Can gold be obtained from quartz? If so, how? that the shares of some of the gold mining companies may still be worth money." Mr. Squires fully answers this question affirmatively, in the advertisement which appears from him to-day, in which he solicits shareholders in such associations to call at his office, that he "may submit to them a plan by which the shares, which are now valueless, may be again marketable." This meets the point under the consideration of our correspondents, and no doubt an interview with Mr. Squires will satisfy their wishes in the matter.

It seems useless to enter again into the merits of the various associations which were organised for the production of gold from quartz in California, Australia, and elsewhere, and the best course which can be adopted is for all parties to co-operate in the establishment of Mr. Squires, or any other method which will have the effect of ameliorating the position and prospects of those who have embarked capital in gold projects; and it would appear that there is every reason to calculate on success from the adoption of the system alluded to. There have been serious failures, no doubt, and lamentable disappointment has resulted to most who gave support to the different gold companies; but they were promoted under the full belief and expectation that the appliances to be used would render the result remunerative, although the contrary has been the general issue of the several associations, after the expenditure of large sums of money. The problem has been to discover the best method of developing the deposits of the precious metal, in a remunerative and commercial sense, so as to make them available for the general supply of gold. It is admitted on all sides that quartz containing the precious metal does exist in enormous quantities in different parts of the world, but the difficulty has been to apply a system whereby the yield should be of greater value than the cost of production; and the argument of Mr. Squires and other scientific investigators is, that the oxides which now pass away, through the various

machines employed for reduction and extraction, can be readily retained by being brought into globules, and thus furnish an additional yield, even from the poorer ores, which would place many of the companies in a profitable position, which are now expending much money, without any benefit to the shareholders. It is certainly a most important consideration, and we are not surprised to receive so many letters on the subject: but as the tenor of the whole is the same they do not require special insertion.

#### THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

The further reduction last week of block tin 6, per ton, and a still further reduction this week, renders the total fall so great that, if the low price lasted for any considerable length of time, it would ruin most of the tin mines in the county, unless the cost of labour and materials could be still further very much reduced, of which no hope seems to be entertained. The fall in block tin, since March last, is now above 40 per cent; but there is every reason to hope that with the revival of trade, which is now confidently expected, the price of tin will again advance; or that if the tin mines can struggle through the next two months, they will again be able to make favourable progress.

The copper standard went up last week about 3, 10s. as compared with the preceding week's sale, and the corresponding monthly sale. Very little is at present doing in mining shares. Some of Wheal Clifford adventurers are very much dissatisfied with the resolution come to at the meeting last week—to purchase one of Consol's engines and pitwork for 3500. At Tywartha, the works for the erection of machinery are progressing in an active manner. It is said by men who formerly worked in this mine that there is a good lode standing in the bottom; if the mine should succeed it will be a good thing for the parish of St. Agnes, which has lately been dull in a mining way. At Copper Hill, a call of 5, per share has been made: the mine does not progress so well as the adventurers were led to expect. Clijah and Wentworth Mine is reported to be looking well, a further improvement being expected in the Wentworth lode, which has good indications. At Cargoll, a considerable improvement was reported last week, and shares changed hands at advanced prices. At East Wheal Rose, many adventurers are by no means pleased with the management, and it would seem that the sooner the concern can be finally wound-up the better. West Bassett is stated to be looking better. Grambler and St. Aubyn has recently improved. At South Seton, a call of 1, 10s. per share has been made. At Wheal Damsel, which is an old mine now re-working, the adventurers seem determined to prosecute the undertaking with spirit. This mine sold, when formerly worked from 1815 to 1842, ore to the amount of 258,208.

[The crowded state of our columns compels us to postpone until our next Journal some interesting statistics and comments on the copper trade and copper smelting, intended by our correspondent for his letter of this week.]

#### THE IRON AND COAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

DEC. 31.—The preliminary meeting of the Ironmasters' Association was held at Dudley, on Wednesday. There was a good attendance of the trade, especially when it is remembered that it was market-day at Wolverhampton. As had been anticipated, it was resolved to reduce the list of prices for marked iron 20s. per ton, the trade prices for the ensuing quarter being fixed as follows:—Bars, 8; hoops, 9; plates and sheets, 9, 10s. As a natural consequence, it was resolved to reduce wages—1s. per ton to be taken from puddlers, and millmen to be reduced in proportion. It is not likely, since the colliers have so cheerfully submitted to a greater reduction, that any difficulty will be experienced in carrying out this. In point of fact, the actual price of iron has for some time been fully as low as the reduced trade quotations, and probably very few of the makers will be able at present to realise so much as these rates, so that the fall in wages is less in proportion than the depreciation in the value of the manufactured article. The reduction in puddlers' wages is slightly above 11 per cent.

At the close of the general meeting, a number of gentlemen engaged in the wire-drawing department of the trade met, and agreed to a proportionate reduction in that class of iron. A general feeling of confidence that the depression had reached its lowest point was expressed at the meeting. The American advices are more satisfactory, and the improvement in the money market, and the effect, gradual restoration of confidence, will probably soon be felt in the receipt of larger orders for iron.

At Birmingham, to-day, decided indications of improvement were afforded. Prices refused only a day or two ago for pig-iron were pretty freely offered, and a fair amount of business was done at somewhat improved rates. It is difficult to quote prices, but about 3, 5s. to 3, 10s. are the rates at which sales can be effected for superior hot-blast pigs. Makers of best qualities, who are not compelled to realise at once, refuse to deal at less than 3, 15s., and probably they will get this rate in a few weeks hence. Coal for use at the works is necessarily lower, as is also ironstone. New mine coal may be quoted at from 7s. to 7s. 6d.; thick coal (lumps), 9s. to 9s. 6d. Best qualities of ironstone raised in the district are about 16s. Prices are rather unduly depreciated from the produce of insolvent firms, which are working under inspection, being compelled to be sold to provide cash for wages, &c.; and the general tightness enables people who can pay cash to purchase at low rates.

Since the list of blast-furnaces in this district appeared in the *Mining Journal* of Oct. 3, no less than 46 have been blown out, and three or four others are likely to cease operations shortly. Instead of 157 furnaces being in blast, there are now only 111, of which several are not fully at work. Looking at the number of blast-furnaces idle (no less than 69), it seems probable that the great temptation which they will offer to persons desirous of making pigs will prove sufficiently powerful to keep prices rather lower for some time than they have been, and they have only been barely remunerative. It may, however, be fairly anticipated that for some time accommodation will be dealt out much more sparingly. The remark made in reference to pig-iron will apply to coal and ironstone, but in a less degree, as the supply is limited. The insolvent estates which consist of mines, and which are being worked under inspection, will naturally be realised as quickly as possible, which will somewhat add to the supply of these minerals.

Owing to the neglect of the railway company my communication, although dispatched earlier than usual, did not reach the office in time for insertion last week; and it is, therefore, necessary to re-state that a meeting of the creditors of Mr. T. H. Pemberton was held in this town yesterday week. The liabilities are 33,376, and the estimated assets—the correctness of the estimate having been assured by a careful examination of the estate—amount to 27,935. Mr. Pemberton offered to pay his creditors in full, in instalments extending over upwards of three years and a quarter; and the offer was accepted, the mines to be worked under inspection. A meeting of the creditors of Messrs. Thomas Morris and Son was held at Birmingham, on Thursday last, Mr. G. Skey presiding. The liabilities are estimated at 40,000. The report of the inspectors was to the effect that, if the mines were worked under inspection for 18 months, and the plant, &c., then disposed of, 13,000, might be realised. It was stated that about 8000, had been drawn out during the last four years by the partners, although the concern was, according to a balance-sheet then prepared for them, barely solvent at the time. Between 1842 and 1853, whilst the profits were 9834, the partners drew out 13,000. The Chairman, in the absence of a guarantee, refused to accept any other terms than that the mines should be worked under inspection until, if it were possible, 20s. in 14, was realised. He objected to limiting it to any dividend. This was refused on the part of the firm, and it was decided that the estate should go into bankruptcy. However, the senior member of the firm, who is regarded as being least to blame, subsequently offered to accept these terms—the two junior partners to retire, and he to receive an allowance of 2000, per annum. An adjourned meeting of the creditors of Messrs. Motterden and Dealey, of Toll End, Tipton, was held on the same day. Their liabilities are 59,562, and the assets are put down at 19,900, but the inspectors estimate them at only 12,000, or 13,000. They failed in 1855, and their works are held as security for the dividends then agreed to be paid. This is another proof, if one were needed of so plain a principle, that business cannot be profitably carried on without capital. As an illustration of the shifts to which they were driven to raise money, it is sufficient to state that in two years they paid 3900, for discounts. The estate is to be immediately wound-up under inspection. One of the worst of the many flagrant cases presented during these failures is that of the Bradley Hall Company, Messrs. Thompson, Burford, and Hadley, a meeting of whose creditors was held in this town on Monday. The liabilities were stated to be 11,964, and the assets, after deducting amounts to be paid in full, reached the absurdly small sum of 650. Mr. Thompson, on being interrogated as to the cause of this extraordinary state of things, was so unwell, that he was rebuked by the Chairman, Mr. Groucutt. It was resolved to wind-up the estate in the Bankruptcy Court.

The total failures in the iron trade since the crisis are twenty-one. Of these only three are likely to pay in full, on time being given them. Their united liabilities exceed 1,000,000, and their creditors will lose about half that sum. Many of the members of these firms, which have been long hopelessly insolvent, have been living in the most extravagant manner.

The gratifying movement inaugurated by the Willenhall miners, on the occasion of the reduction of their wages, to establish a reading-room, with a view to keep them acquainted with the progress of the world around, or rather referring to their subterranean pursuits and the world above them, appears likely to succeed. The first meeting was held on Monday evening, when Mr. Isaac Platt, the proposer of the move-

ment, delivered a sensible speech. He expressed a hope that by conference with the masters they might avoid strikes for the future; and added it was the intention of the committee, in addition to the reading of papers, showing the rise and fall of the price of iron, to call upon the leading gentlemen in the district to lecture against the prevailing social evils of the day, and plainly show that "the preventative was better than the cure." They sincerely hoped to conduct their business without any resort to "strikes," or committing "the slightest breach of the peace." Nothing could be more gratifying than this movement, spontaneously commenced by the colliers themselves. There is a strike amongst the Cr. The reduced rate of wages have come before crested towards men who have accepted. The strike is not likely to last long. The magistrates, who have punished the ob-

#### REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTER, ELD.]

DEC. 31.—The trade throughout these counties is much depressed, but as the money market is becoming easier, and as the rotten houses will have been expunged from the commercial list, trade must again speedily resume its activity, on a sound basis.

The Coal Trade is not so active as is usual at the present season, and prices are lower. The wages of colliers at the collieries have been reduced, and in these counties such reductions have been submitted to quietly. The commercial crisis has had the effect of checking the increased development of the trade, and several large works in course of formation have been suspended until the money market shall have become easier, and general trade assumes a position to give encouragement to new enterprises.

A curious case, and one of some interest to the iron trade, was heard in the Rotherham County Court, on Wednesday. An action to recover 50l. was brought by Edward Burgess, a puddler, against George Booth, a "shingler," both employed at Messrs. Beale and Co's. Park Gate Iron-works. The defendant had the management of a tilting hammer, and the plaintiff and other puddlers carried molten iron to the furnace, to be beaten and welded. On April 15 Cole, a puddler, took a ball of molten ore to Booth's hammer; Burgess, the plaintiff, was some minutes later than he ought to have been in following with a second ball, which was unsnapely, and he was unable to get it on the spind face, and whilst he was trying to do so a piece of molten ore splashed in his eye and destroyed it. Plaintiff alleged that the ore splashed in consequence of Booth throwing down his staff on which he had carried it in a passion. The defendant contended that he dropped his staff, not in a passion, but to gag the hammer, and that the injury which resulted was accidental. It was a jury case, and they gave a verdict for the plaintiff, damages 15l.

A fatal boiler explosion, resulting in the death of two persons, occurred on Tuesday at the White Horse Pits, Harehills Colliery, near Leeds, by the bursting of one of the boilers. The boiler is an old-fashioned cylindrical one, about 30 ft. long, and on Monday afternoon a leak was discovered, and the works were stopped for repairs. On Tuesday morning it was filled with water, so as to enable the engineman to draw the boiler out of the pit. After it had been charged with steam it exploded into numerous pieces, and killed two persons; one, Mr. Joseph Garside, one of the proprietors of the colliery, was found dead in the debris, and the other, a boy died a few hours afterwards from scalds. The fireman, G. Haigh, was also severely injured, and is still lying in a very precarious state. The cause of the explosion is at present a matter of conjecture, but rumours are current that it was owing to a deficiency of water. The boiler has not, we understand, either been repaired, or taken to pieces. The inquiry on the bodies commenced to-day before Mr. Blackburn, the coroner, but it was adjourned after some formal evidence had been taken. The Government Inspector, has also examined it, and will attend the inquest.

The opening of an extensive colliery, with a powerful engine and machinery, calculated to draw a ton of coal in thirty seconds, or upwards of 100 tons per hour, has been celebrated at Stainborough, near Barnsley. It is the property of Messrs. Cooper and Co., of the Worsbrough Collieries, who are large coalowners, and have been extensively engaged in mining operations for many years. The pit in question, which was commenced about 18 months ago, is called the Silksstone bed of coal. The operations at a considerable depth to the celebrated Silksstone bed of coal. The colliery is situated in a lovely part of a valley between Stainborough and Silksstone, alongside the South Yorkshire Railway, with which, by means of a tramway, it communicates, and which will afford a ready and convenient outlet for the coal, a considerable quantity of which is expected to be brought to surface, and at the works, when in full operation, a large number of hands will be employed.

We have nothing new to communicate with respect to the lead mines of Derbyshire, no important change having taken place since our last. The Mill Dam Mine will come into complete possession of the present company on Jan. 12. The scrip will be issued next week, and the first call of 5s. is payable on the 4th. The company are sanguine with regard to dispensing with the necessity of a pumping-engine, and this circumstance had given increased value to the shares.

The Mill Town Mine, at Ashover, is doing well, and some good ore is being got. Eyam and Brightside are yielding about their average returns, but the Peak United is looking only moderate. A variety of circumstances encourage the belief that the new year will reveal important progress in development of the Derbyshire lead mines.

#### REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

DEC. 31.—We regret to have to record this week an extension of the strike among colliers, particulars of which we have from time to time placed before the reader. Those who returned to work at Aberdare have now struck again, and a settlement of the dispute seems more remote than ever. The Monmouthshire colliers have been urged to join in the strike, and the men employed at the Varteg, Golyons, British, and Pontypool Works, have all turned out. They were under notice of a second reduction of wages, which expired this day, and they refuse to accept the terms, alleging that the first reduction was as much as they could bear. On Friday and Saturday large meetings are to be held of the Aberdare men, for the purpose of inducing those in Monmouthshire to follow their example. Thus, the close of the year is attended here with anxiety, disaffection, and misery; and when a change for the better may take place it would be in vain to predict.

The Bristol and Forest of Dean Coal Company has held its first general meeting. From the reports read, it appeared that the colliery works are in a satisfactory state, and the undertaking is in a generally prosperous condition. Especial praise was bestowed on a large horizontal winding-engine, constructed by Mr. J. Gregory for use on the works. The directors were reappointed, votes of thanks passed to the officers of the company, and a spirit of great confidence was displayed by the shareholders.

An accident has occurred to an aged collier at the Charles pit, Llanammet, belonging to Mr. C. H. Smith: about 100 cwt. of coal fell upon him, and he was crushed to death. A man has also been burned to death at Dolwais, and another killed at the same place, in Morgan Williams's pit.

The inquests on the bodies of the sufferers by the late accident in North Wales are concluded. A verdict of accidental death was returned in each case. The coroner, in summing up, observed that it was a most dreadful state of things that such awful calamities should occur so frequently. A more vigilant inspection was obviously required, and must, if possible, be enforced. It would be well for those in charge of quarries to reflect that, by a recent Act, they were liable to action for damages where neglect was proved, even where death did not occur. These remarks will result, it is to be hoped, in the exercise of a little more caution and care than have hitherto been displayed.

The events of the past year prove that, previously to the late panic, the iron and coal trades of this district were never in a more prosperous state. New fields have been opened up, and fresh discoveries made, while the attention of men of capital has been more directed to them. Notwithstanding a wonderfully increased demand, the supply has always been more than equal to it, and the resources of the place have been influenced only to an imperceptible extent. In the midst of this, however, came the strike; and now universal depression is experienced—the masters are losing money, and the workmen are enduring poverty. Added to this, we have the Taff Vale dispute between the company and the freighters, which would prevent the coal being shipped, even if it were produced. These circumstances render the close of the year a gloomy and anxious period, and we fear that many sad anticipations will be realised ere the new year has far advanced.

MANUFACTURE OF STEEL.—Another patent, No. 1660 (1857), has been obtained by Mr. R. Mushet for the production of steel. He states, in the specification, that "he finds the quality of steel is greatly improved by adding to it a portion of metallic manganese." The addition of the manganese is made after the steel has been melted, or when it is nearly melted. The proportion to be used depends upon the nature of the metal operated upon, and upon the kind of steel to be produced—for mild steel, 1 per cent.; for steel of medium hardness and "body," from 2 to 3 per cent.; and for steel of great hardness and "body," 5 per cent. of manganese. Mr. Mushet states, also, that malleable iron may be converted into steel by melting it, and then adding metallic manganese, without any admixture of cast-iron or carbonaceous substance. The amount of manganese to be used will depend in this case also on the nature of the iron, and the kind of steel required; it will range from 1 to 10 per cent. The metallic manganese is to be wrapped in a sheet of thin sheet-iron, and thrown into the iron, which is then heated till perfectly liquid, and run out into moulds; or the manganese may be melted in a separate pot, and poured into the steel or iron. Mr. Mushet remarks that the metallic manganese may be obtained by any convenient method, but he particularises the fusion of oxide of manganese in close vessels with fluoride of calcium, soda, or common salt. None of these substances, however, are capable of reducing oxide of manganese to the metallic state. The conversion of malleable iron into steel by alloying it with manganese is quite opposed to the results obtained by Karsten as to the influence of this metal upon iron and steel. He considered that, when present in small amount, it communicated some degree of hardness, without being injurious to the tenacity of bar-iron; but, while admitting that the greater or less hardness of malleable iron might in some instances be due to the presence of manganese, he was of opinion that malleability or brittleness were characters independent of the hardness of the metal, and determined mainly by the amount of carbon. He found that malleable iron, containing as much manganese as steel, and even more, to the extent of 1.85 per cent., did not present any of the characters of steel. He also points out as a remarkable fact that some of the most highly prized kinds of steel do not contain a trace of manganese.



## Original Correspondence.

## CAST-STEEL PATENTERS.

Sir,—A very grave charge appeared to me to be made in your Journal of Dec. 19, against the Ebbw Vale Company. As I do not see it noticed this week, as I expected, and it concerns the public, I must advert to it. In the spring of this year I was strongly urged by Sir C. Harcourt, the proprietor of the fabulously rich iron property in Westphalia, and his friend, Mr. Lenz, to examine the specimens of Uebatius steel at Messrs. Krefeld and Co.'s, and also a rail made by the same process, at the office of the Ebbw Vale Company, Llantrisant. Mr. Robinson obligingly showed me the rail (on which I wrote at the time some remarks in your Journal), and explained the particulars of its manufacture. We had some conversation, and I gave my opinion freely respecting the deposit of spathose ore on the Brendon Hills, relied on to furnish the element of the manufacture, but the name of your correspondent who has now claimed that rail for his patent was not so much as mentioned by either of us. Therefore, as the matter stands in your Journal of the 19th, all the gentlemen I have named have been passing off on myself and numerous others a very extraordinary production as having been made by one patent, when it was really made by another. I know more of the Chevalier Harcourt than of any of the persons referred to; I am certain any deception on his part is impossible, and am a little disposed to believe in deception by the others; but it is a very serious imputation, which ought to be set right.

I was glad to see Mr. Walshaw had shown malice, and done himself the justice to disclaim the parentage of the *pro re nata* assertion fathered upon him respecting the pressure of blast obtained from the engine I described. But I think he will lose with furnace manager, quite as much as in the other case with engineers, by accepting a silent affiliation of the Marten invention, in the preposterous proposition that he sought to remedy the difficulties of the Darkhill experiments by inserting the tuyeres under the bottom of the hearth. Place the tuyeres of an iron smelting furnace under the bottom of the hearth, which was at least 4 inches deep, and after having passed up, if it could, through the liquid iron and clinker, to supply the essential heat and gases for the smelting processes above! How can his silence under this calumny be accounted for?

I have some slight acquaintance with the habits of manganese, and should read with pleasure an account from some person, whose word can be trusted, of the details of smelting metallic manganese from a blast furnace or cupola, the cost of the metal per ton, the method of stowing it away for use, the burden of the furnaces, the proportions of fluxes, and all those details which are so interesting to metallurgists in any new metallurgical process. — Dec. 20. DAVID MURPHY.

## MANUFACTURE OF STEEL.

Sir,—Your correspondent, "Westphalia," is convinced that, unless the raw material be adapted for the manufacture of steel, not one of my inventions will aid me in producing a marketable commodity, much less a substitute for the better descriptions of steel. As, however, he gives no definition of what the raw material should be to ensure success, the force of his conviction does not clearly appear. I quite agree with him that, when we wish to make steel, we must not take copper to operate upon, neither would we desirably pick out the inferior kinds of coke pig-iron; I suppose, however, in other words, we would select a raw material adapted to our purpose. The raw materials upon which I have operated are—Forest of Dean cold-blast coke pig, hot-blast ditto, Pontypool Foundry pig, Victoria Foundry pig, Lay's Ironworks forge pig, Tow Law forge pig, and anti-rust hot-blast pig-iron; and I purpose sending three or four samples of cast-steel from each of these raw materials to your office, all of which, I believe, will be deemed marketable, and at least as good as the average of cast-steel now in the market. I am not prepared to say that the pill or potion will operate alike on all kinds of pig-iron, but if it answers for the production of more than 20 blast-furnaces, its scope is pretty wide, as far as steel is concerned; and I have no doubt that 20 more may be found to yield iron equally suited for my process, and certainly 20 more might be built in the Forest of Dean alone to produce a suitable raw material. There is nothing at all mysterious in Mr. Sanderson's process; the chemistry of it is as simple as that of the atomic process, and I have very fine samples of iron produced by it. Neither is there any mystery attending Mr. Bessemer's process or mine. As to Mr. Bessemer's processes, they are indeed shrouded in mystery, and are likely to remain so. For myself, I trust wholly to mechanical arrangements and to common sense for the successful operation of my processes.

If chemistry told me that a certain pig-iron contained a large quantity of sulphur and phosphorus, I should not prefer to use such a material; but, on the other hand, if I found that this iron, treated by my process, yielded good cast-steel, I should not reject it because chemistry has shown it to contain an excess of sulphur and phosphorus. The analysis of one of the toughest bars of cast-steel ever manufactured gave as under:—Carbon, 0.493; silicon, 0.430; sulphur, 0.234; phosphorus, 0.097.

The analysis was by Mr. Henry, and clearly shows that neither silicon, sulphur, nor phosphorus are quite so injurious as they are so often represented to be. I do not think that any amount of chemistry can enable us to compound a flux which shall convert British coke pig iron into good steel, and it is quite certain that the Uebatius process does not solve the problem. Chemistry shows us that an iron ore is mixed with 3 per cent. of pyrites. Theory next tells us that such an ore is unfit for making either good iron or steel. Practice, however, steps in, and produces from the condemned raw material first-rate pig-iron and excellent steel. I have lately seen a remarkable instance of this kind.

It is very interesting to learn from Mr. Tunner that pig-iron contains from 3 to 5 per cent. of carbon, that wrought-iron is nearly free from carbon, and steel between the two. The quality and quantity of these remarks, I suppose, to constitute a very "fair paper" upon this subject at the Sheffield Literary and Philosophical Institution. — Coleford, Dec. 20. ROBERT MURPHY.

## MANUFACTURE OF STEEL.

Sir,—"Sideros" says he has read Mr. Bessemer's specifications—I am glad to hear it, but should have been better satisfied had he been able to comprehend what he read, I fear that in his readings he has been guilty of what the schoolboys call skipping; and this accounts for his taking a few isolated passages and decanting upon them, without keeping in view the general tenor and import of the subject in hand. Mr. Bessemer's patent of March 15, 1856, is not so much for the decarbonisation and refinement of iron by the use of oxides of iron and carbonaceous matter, as it is for the peculiar modes of decarbonising iron by the use of currents of atmospheric air or steam. The specification says, "These improvements relate—firstly, to the peculiar modes by which the decarbonisation and refinement of iron is effected by means of currents of steam or jets of atmospheric air (alone or mixed), and which is made to impinge upon the surface, or pass through, or in contact with, the metal while in a fluid state. Secondly, in assisting the decarbonisation and refinement of iron by the use of oxides of iron, and in the use of carbonaceous matter during such process." Here, therefore, it will be manifest that the employment of the several oxides, gases, and carbonaceous matters, which perplex "Sideros" so severely, are considered as of secondary importance by the inventor.

"Sideros" thinks a little gasp would, perhaps, be as harmless in combination with the fluid iron as a puff of wind. Probably it would; for, if combined with a certain combustible matter—the name of which I need not now mention—shall blown in through the tuyeres, in combination with atmospheric air or steam, the operation would be as harmless as would be the discharge of a pop-gun or a squib on Plumstead Marshes.

He also complains that no definite instructions are given as to the mode of introducing the several carbonaceous matters, and that we are not informed in detail what they really are. The specification says, "When the decarbonisation and refining of iron is effected by either of the modes herein mentioned, or by any other method in which jets of steam or air are applied to fluid iron, that purpose, and in which the metal is kept in a fluid state until the completion of the process, I force on, or into, such fluid metal carbonated gases, or introduce therein fluid or solid carbonaceous substances in sufficient quantity to combine with any oxides of iron that may exist in, or interfere with, the malleability of the metal. For this purpose I use an air-pump, or blast-engine, and I connect it with a gasometer containing carburetted hydrogen gas, which I force through the same tuyeres or passages into the fluid metal, as I had previously used for the passage of air or steam, in order that such gases may unite with any oxygen existing in or among the particles of metal, and effect a separation thereof." Now, I think this description is sufficient in detail. It must be kept in view, however, that the employment of the several matters mentioned in this specification are to be considered in common with currents or jets of air or steam, and not as the primary elements of the invention. As to the quantities of the matters employed, that I presume will depend upon the nature of the iron under operation, some kinds of which would require more than others. The specification clearly states that the carbonaceous matters are to be introduced with the blast, and that they are to be in sufficient quantity to combine with any oxides of iron that may exist in, or interfere with, the malleability of the metal; it is evident, therefore, that Mr. Bessemer's object was to prevent or counteract the excessive oxidation of the iron during the purifying operation—to prevent an evil, in fact, rather than to doctor it after it had been created. "Sideros" has evidently lost sight of the pith of this patent, and, therefore, clings to its minor details, the capabilities of which, when employed with jets of air or steam, he is unable to comprehend; hence the grand flourish of vituperation with which he concludes his critique thereon must be taken for what it is worth.

As regards the patent dated March 31, 1856, "Sideros" is again in the dark, and in his groping propensities has fallen over several objects which he cannot understand. Perhaps he has had one or two hard knocks in his fall, and these have ruffled his temper a little. Why not take the light of common sense—yes, and common honesty too, friend "Sideros," to assist you in your lucubrations. In the specification now under consideration, the inventor says—"In carrying into practical operation the manufacture of malleable iron and steel by forcing atmospheric air or steam into and among the particles of fluid iron, for which patents have been already granted to me, I have discovered that certain modifications of, and additions to, the apparatus and processes therein described may be advantageously used, and the adaptation of which improvements to the manufacture of iron and steel, forms the subject of my present invention."

Mr. Bessemer does not state that his invention is for preparing or combining a triple compound of iron, carbon, and manganese with the air-purified fluid iron; nor does he state that it consists in the application of certain fluxes to the iron; he merely recommends that practical men should use their own discretion according to their experience when working according to his new process, even as they would were they working under the old process; and with this object in view, he mentions some of the matters commonly employed in the manufacture of malleable iron, and in the conversion of iron into steel. When, however, the old methods of admixture are not applicable to the new process, he enters more fully into detail. Thus, when speaking of fluxes, he says:—"These fluxes, or any of them that it may be found necessary to use when treating iron in my improved apparatus, may be introduced into the metal in the form of powder at the tuyeres, or by allowing such powders to fall from a close vessel gradually into the blast-pipes, so that they may be blown in with currents of air or steam, and be thus made to act direct upon the fluid metal." And, again, when speaking of alloys, he says:—"When using salts, or oxides of metals, for the purpose of producing an alloy or mixture with the iron or steel, I prefer to introduce such salts or oxides in the form of powder at the tuyeres." Can this be construed into a remedy for a created and existing evil, or a preventative of the evil? In speaking, however, of the several fluxes which have puzzled poor "Sideros" so sorely, and the pursuit of which has caused him to give vent to such an effusion of nonsense, Mr. Bessemer says:—"The application of the same is not claimed by me under the present letters patent." He was aware that manganese had already been employed, and had formed the subject of a patent many years ago; he was also aware that a great number of alloys and fluxes of various kinds were in common use, and,

therefore, that none of them could form the subject of a valid patent at the present day, even though they were employed in combination with his new process. All that it was necessary for him to state in his specification was, that when such alloys or fluxes were employed in connection with his new process it was advisable they should be used in the form of powder, and forced in with the blast at the tuyeres; and this he has unquestionably done.

To do Mr. R. Muesel full justice, however, I must admit that I do not know that metallic manganese was ever employed, or had ever formed the subject of a patent prior to Sept. 23, 1856. If not, he has accordingly a clear claim to its use. The whole question, however, hinges on the point as to whether it is necessary or indispensable that the manganese—if used at all—be in the metallic state, and also as to whether the oxide and carburet of manganese are in law equivalent to metallic manganese. As to the necessity for using either the "triple compound" or metallic manganese alone in combination with the air-purifying process, I have grave doubts. With an iron tolerably free from phosphorus and sulphur they may be of some service, but as the air purification does not remove these matters it is pretty clear that Mr. Muesel's compounds will not.

"Sideros" thinks, however, that the success of the air-purifying process depends entirely upon the proper introduction of metallic manganese, yet he does not tell us why it is or should be so. The "red-hot" and "cold-hot" characters of iron cannot be materially influenced by it, nor will it remove its cellular character. "Sideros" has evidently become a little mystified with the subject. Many a man's brain is filled with Greek and Latin, yet, if the power to employ the same for useful purposes be not possessed, these acquisitions are as the tinsel on a Columbian's skirts, which may look very pretty under the glare of gas-lamps, but paltry under the clear light of day. So, too, many a man's skull may be so stuffed as to become a perfect chemical vocabulary, and yet the man may not be able to make a fuzee with which to charge his musket in the time of peril, nor a pill to cure the head-ache. I advise "Sideros" to take the hint, and if he wishes to do either himself or his friends any good by his talents, to endeavour to make his knowledge a little more practical. — Coleford, Dec. 20. W. GREEN.

## ON THE VENTILATION OF COLLIERIES.

Sir,—The discussion of coal mine ventilation between Mr. Wales and Mr. Hopton is now ended, and we have also been favoured with a sort of summing up of the case between them by Mr. Harold Worth. I wish, with your permission, also to say a few words on the subject, and also to make a few remarks on what Mr. Worth says about Newcastle views.

I shall, therefore, in the first place, remark that it is quite clear Mr. Hopton is totally unqualified to write on the subject of the ventilation of coal mines. If I mistake not, he does not know, or did not know until very lately, the meaning of the word density. I think he would quite sufficient proof here that there is a want of Mining Schools in the Yorkshire district. And I must say I think also that if Mr. Worth has much knowledge of coal mining and of coal mines, he ought to know that there is a very great want of mining schools in every district, including none.

With respect to Mr. Wales, there is no doubt he has a good practical knowledge of ventilation; but whether he is qualified as a lecturer or writer on the subject is quite another question. My private opinion is that he is not.

With respect to the discussion between Mr. Wales and Mr. Hopton, it has been treated in the North with great and deserved contempt; it was, in fact, a discussion between a merely practical man on the one part, and a very ignorant man on the other; and on a very plain point indeed—one that would be solved by the merest tyro in the science in one month.

We now come to what Mr. Worth says about the Lund Hill Colliery explosion, which he insinuates occurred under the management of a Newcastle view. Now, as I happen to know the gentleman he alludes to, I state, in the first place, that he is not a Newcastle view; nor many years have elapsed since he was getting coal with the pick. True he is a Newcastle man, but he must not be taken as a specimen of a Newcastle view. In the next place, I would remark that the consequences of that fearful catastrophe could scarcely be charged to him; he had only been, I think, a few months in the place. He found it laid out and in full working, and on the largest scale. Did he not say as much in the indictment that he most writhed he had ever seen? Who devised it? Would he place it, I ask? Was not that dreadful accident the result of a system? Are there not numbers still pursuing the same or similar systems? Will Mr. Worth inform us who was the inventor of that horrid, stupid, and barbarous method of working coal by leading and following up benches? Certainly not a Newcastle view.

Mr. Worth next pretends to sneer at Newcastle gentlemen talking of the motive column, &c., and speaks in such a flippant manner that I really am afraid his knowledge of the subject is very limited. According to him, a colliery manager can learn quite sufficient in a month, from a 6d. book, to enable him to spirit with any of the Newcastle lecturers. Does he mean those he mentions as having lectured?

In conclusion, I would propose to Mr. Worth to take another view of the subject he has broached, in order to test the abilities of viewers of different districts—viz., to take the number of collieries (say, the last three years, or since the passing of the Mine Inspection Act), the depth, gas produced, &c., at those collieries, number of men employed, tons of coal raised, cost per ton, number of accidents of all kinds, both from explosions and otherwise. I think that this would lead to something satisfactory on the subject. — Dec. 23. A NORTH COUNTRY VIEWER.

## EXTRACTION OF COPPER, SILVER, AND NICKEL FROM POOR ORES.

Sir,—In the Journal of Dec. 19 you reverted to the treatment of poor copper ores, a subject which both now and on previous occasions has attracted much attention. I need not enter into details as to the difficulty of treating ores generally regarded as of little or no valuable value, either chemically or metallurgically, so as to benefit the three difficulties being sufficiently known to and felt by the ore-producing concerns. I may say, however, that metallurgical operations, if good returns are to be made, require to be worked on a large scale, and that large outlays should be made. The chemical treatment of these ores by the wet way is, though much improved of late, too long and tedious a process to be generally recommended. The new system promises to unite the wet with the dry way, and it is reported to be based on such clear and simple principles that difficulties, hitherto existing may be said to have been overcome.

The German scientific press has teemed with articles on the subject, and the writers being such men as Dr. Hartmann, of Leipzig; Mr. Hübner, the Saxon consul at Leghorn, and the Brothers Haupt, all of whom are personally known to me as gentlemen of great scientific attainments, together with the fact that the method is being practically worked in Tuscany, I am convinced that the invention deserves attention. The process has many advantages—the ores can be treated just as they come from the mine, without previous dressing; it is also particularly applicable for poor and middling ores, and also for such as contain zinc, lead, antimony, arsenic, nickel, tin, &c., so that notwithstanding these admixtures a pure copper is produced. Zinc, antimony, arsenic, and nickel are also probably treated. The process can be carried out wherever a small quantity of water is to be had; it is extremely simple, requiring but a small outlay, little fuel, and few hands; the loss of the metal to be extracted is reduced to the minimum, the loss varying from 1-10th to one-third part of the total contents of copper in the ore, which it must be borne in mind is considerably less than that caused by dressing and smelting; the whole process is completed in a few days; a very small quantity of silver is extracted without increasing the cost, and gold, tin, zinc, &c., may be obtained by an after process, and several other products are yielded which may in many instances be profitably employed. We regard to the cost it may be stated that the treatment of 1000 lbs. of ore worth 15s. per cent. costs 12s. 6d., notwithstanding the unfavourable circumstances of the locality, so that the production of 100 lbs. of copper would cost 9s. 6d., or in round numbers in English, 1 ton of ore would cost 5s. to treat, or the production of 100 lbs. of copper would cost 36s. These results have been obtained in several places, and the Austrian Government has appointed competent men to report upon the invention, and preparations are being made for introducing the process upon several mines in Hungary.

About a year since, the invention of Mr. Hübner, of Leghorn, was described in your Journal, and a further prominent notice having been taken of the patent, it appears opportune to invite the attention of those concerned, as according to all accounts the invention is already making favourable progress on the Continent. — Tyndrum Mines, Dec. 23. C. H. GUYAT, TROST.

## GREAT WHEAL BUSY UNITED MINES.

Sir,—In the Journal of the 12th inst., you were good enough to give place to a communication from me, verified by my name, in which (considering your Journal the speediest and most eligible channel for conveying information to the shareholders and the public) I stated some facts and enunciated some opinions respecting the valuable property confided to my charge. For the truth of those allegations of fact, and for the soundness of those opinions, I made myself openly responsible, and I had, therefore, a right to expect that anyone who might presume to question either one or the other, would take as many a course as I had myself adopted, and stamp the worth of his objections by affixing to them his name. A writer, covertly signing "O. B. C." however, has ventured to charge me with making exaggerated statements, and otherwise throwing discredit upon what I have said. This is the more remarkable, because your official correspondent in Cornwall, only a week previously, gave a favourable notice of Great Wheal Busy Mine. For myself, I can well afford to rely on the weight and value of my own character, as well as with my employers as with all who personally know me; but I owe a duty to the property under my management, which I really cannot see as a personal feeling, and it is this which compels me to take notice of the remarks referred to. I might, in the first place, ask—What motive had "O. B. C." for attacking the Great Wheal Busy Mine, other than a malicious one? Commenting on my statement (and taking it as he gives it) "that we shall shortly have 500 tons of ore monthly, and will be making profits," he says "this is not the fact, as the ore is of very poor quality," &c., as though from ore of very poor quality profits might not possibly be made, or, because it chances to be poor, 500 tons of it per month could not be raised!

Now, I will put it to the common sense of your readers, whether he who flatters contradicts me is a better judge of the capabilities of the mine than I who am its manager; and he is more likely to speak the truth concerning the property he assails, than I who have daily opportunities for observing and assisting its development, and a character openly at stake in everything I may say concerning it, which he has not! A word of explanation on this point. The ore lately sold were poor; I grant that; I never pretended they were not; but they were raised from shallow depths (above the 60) whilst we were erecting our machinery, &c., and draining and clearing the mine, but the quality improves as we go down; and the ore from the 80 and the 90 ft. levels, now laid open, will justify all I have said of them. As to our raising 500 tons per month, I repeat my belief on that point, as expressed in the communication "O. B. C." has assailed.

He then attacks the opinion I ventured to express, that Great Wheal Busy is the best mining property in Cornwall. Now, this is purely matter of opinion of which every one can judge, not matter of fact calculated to mislead. "O. B. C." cannot say it is not the best mining property in Cornwall, because the mine is still undeveloped; it has not yet been opened to the point (100 fms.) where the leading mines in the district really become rich, whilst the resources already discovered, and those fairly in prospect and to be relied upon, are enormous. "O. B. C." says that my communication "frustrates" by saying that shares are well worth 12s. each, when they can be bought at 6s. a share, and even less. By this I presume he means that because the shares can be bought at 6s. they cannot be worth 12s.—an inference worthy of such an intellect as he seems to possess. I have heard of no instance of Great Wheal Busy shares "selling at 6s.," or even less; but even were this the case, obviously it by no means follows that the shares may not be worth 12s. each; for the experience of every one must furnish examples where shares in property still in course of development,

those of Great Wheal Busy, and even shares of dividend-paying mines, have sold, in a panic of extraordinary depression such as that we have just passed through, at half or less than half their real value. If "O. B. C." or anyone else, should desire further information, and will attach their names to their communications, every attention will be paid; but I decline to notice anonymous ones. — Chacewater, Cornwall, Dec. 23. J. B. PASCOE.

## ORIGIN OF RAILWAYS.—No. IV.

From our great press of matter at the present moment, we are reluctantly compelled to omit a large portion of the documentary evidence furnished us by Mr. W. H. James, to prove his late father's title as Originator of the Modern Railway System; but we consider the following certificate, in connection with a testimonial to his memory and a subscription for his children (which was not proceeded with for reasons before stated), so decisive upon that point as to satisfy the sceptical, and save us any further reference to that subject.

**PUBLIC TESTIMONIAL** to the memory of the late William James, Esq., civil engineer and land agent, of Warwick, and New Rowell-court, London, by means of a general subscription for the family (consisting of four sons and one daughter) of the said Wm. James, the original projector and surveyor of the Manchester and Liverpool railway, the first established for engine passenger traffic, and the principal lines of railway subsequently established in this kingdom. The following gentlemen, in consideration of the public services of the late William James, have resolved to promote the above laudable and benevolent design:—

**JAMES TESTIMONIAL**—We, the undersigned, hereby consent to act as a committee for promoting a general subscription for the four sons and one daughter of William James, Esq., deceased, civil engineer and land agent—W. H. James, J. H. James, G. W. James, T. F. W. James, and Mrs. James. In consideration of their father's public services, as the original projector and surveyor of the Manchester and Liverpool Railroad, and many other of the most important railroads in this kingdom, principally at his own cost, we being of opinion that the great benefits conferred upon this country in particular, and the world at large, by his successful exertions, and great pecuniary sacrifices to the injury of his family (who were thereby deprived of all patrimony, and have suffered great privations for more than 20 years), entitle them not only to public sympathy, but also compensation—it being an acknowledged fact that to their father's labours the public are indebted for the establishment of the present railroad system.—R. Harvey, 53, Gracechurch-street; Robert Stephenson, 34, Great George-street; Joseph Locke; George Rennie; George Landmann; Wm. Healy, 150, Fleet-street; Joseph Woods, Bucklersbury; Edward J. Starbuck; Stopford Thomas Jones; J. C. Robertson; I. K. Brunel, 18, Duke-street; Charles Vignoles; John Macneill, 9, Whitehall-place; John Sylvester, 96, Great Russell-street; J. E. Errington; Joseph Taylor; Charles John Blunt.—July 12, 1845.

**TRUSTEES**—Messrs. Benjamin Bond Cabell, Temple; John Masterman, Nicholas-lane; and Robert Harvey, Gracechurch-street. **SECRETARIES**—John Masterman, Nicholas-lane; Messrs. Masterman, Peters, and Co. Hon. Sec.—Ald. Sir J. P. Pirie, Bart. Temporary Offices, 35, Gracechurch-street.

**ELECTRO-MAGNETISM AS A MOTIVE POWER**—Mr. J. P. Joule, Oakfield, Manchester, in a very long letter to the Times, states that a great deal of unnecessary mystery and difficulty has been introduced by writers on electro-magnetic machinery, and, in the end, the advantages or disadvantages of reciprocating and rotary motion, of long stroke and short stroke, &c. The fact is, that the electro-magnetic engine is a very simple piece of machinery, and requires no great refinement of ingenuity to give it all the perfection of which it is capable. In conjunction with the late Dr. Seebeck, he produced an engine (see Phil. Mag., June, 1846) which realised (the force needed to overcome friction being included) one-half of the theoretical maximum; but the same experiments which gave them this comparatively large result proved the utter hopelessness of increasing (developed by the consumption of 1 lb. of zinc) a trifling expense. Comparing the power of 1 lb. of zinc in steam or air-engine, we find the ratio in favour of the latter to be nine to one; so that, even if zinc were as cheap as coal, and a voltaic battery as easily kept in working order as an engine furnace, the former could never come into competition with the latter as a source of motive power. The reason is obviously, that the mechanical force developed in the oxidation of zinc is much less than that developed in the combustion of coal, as proved by the relative quantities of heat obtainable by the two operations. Could currents of electricity, which probably act as the intermediate source of force in the combustion of fuel, be led through conductors into one channel, then might a reasonable hope be entertained of electro-magnetism equalling, or even to some extent surpassing, steam. The view taken by Liebig is undoubtedly correct, and is worthy of that most profound philosophical chemist, and cannot be disposed of so easily as supposed by some. It simply expresses that, if A can take B from C, B unites with greater force to A than to C. Any one who asserted the contrary might perhaps be compared to an accountant who added 2 to 2, and found the result to be 3. It is humiliating to see how readily the matured judgment of an eminent cultivator of self-reliance is so easily deceived as well as it is to know that the truth is a very simple one, but he is deeply to be pitied when he so wastes his talents and energy misdirected through ignorance of established scientific principles.

**ORDNANCE MANUFACTURE**—It is argued by those fully competent to form an opinion, that Parliament should insist upon it being considered, before the Government Cannon Factory for casting iron guns be finished, whether that metal in that form be not absolutely worthless for the arms now coming into use—11 and 12-in. guns. In the early part of 1855, Mr. James Longridge, C.E., proposed to construct cannon of a tube covered with wire wound round it so tight that it should very much, if not quite, relieve the inside from strain. In June of the same year, Mr. Mallet read a paper to the Royal Irish Academy, advocating the construction of cannon of successive layers of cylinders, so put together that all should be equally strained when the gun is fired; thus the inside would not be subject to fracture, while the outside is weakened—as in a cast mass. His method of effecting this is to have each cylinder slightly too small to go over the one under it, till expanded by heat, so that when cool it compresses the interior and is slightly strained itself. The 36-in. mortars have been made on this principle, and if they have failed with 40 lbs. of powder, cast-iron must have failed with still less. In 1856, Prof. Daniel Dröbisch, V.P. of the American Academy, read a paper to that body, recommending the same principle of construction; and Capt. Blakely, of Tunbridge Wells, has for some years been endeavouring to urge its adoption. During the past month, the service gun of similar size and weight, Capt. Blakely's gun bore about double the amount of firing the service gun did, and being then un injured was loaded to the muzzle 138 times, and thus fired before it burst. It is, however, believed to be useless to point out to Government any improvement, however palpable, until they have been so far prepared as to wish for improvement. The next step must be to induce them to appoint a board to examine all projects brought before them, even although 99½ per cent. be valueless. In 1855, 6000 new inventions were submitted to the select committee, &c. (Ibid.) and of them; yet there must have been at least thirty suggestions of some value. This is ample proof that they did not wish to adopt any suggestion made to them.

**METROPOLITAN TRAMWAY—TRAM-CARRIAGES**—There now seems every probability of the long-talked-of street tramway through the more crowded thoroughfares of the metropolis being really commenced: the London Omnibus Tramway Company (limited) having issued their prospectus, and with such names attached to it as would justify one in anticipating a favourable result. The directors are Messrs. Macnamara, Arman, Coway, Johnson, Read, Hartley, and Willing; the solicitors, Messrs. Wilkinson and Stevens, of Nicholas-lane; the secretary, Mr. A. G. Church; and the engineer, Mr. J. Sammut. The advisability of establishing some improved system of transit has long been acknowledged, and the laying down of tramways has been considered by far the most effectual way of accomplishing the desired object. Hitherto, however, a great obstacle presented itself, inasmuch as had a tramway been laid the whole of the existing traffic would have remained, and there would, therefore, have been but little relief. The Tramway Company would indeed have brought new and improved vehicles on the road, but the old ones would have struggled to compete with them; at present, however, this obstacle does not exist, for as the majority of the omnibuses belong to the London General Omnibus Company, which is closely connected with the London Omnibus Tramway Company, immediately on the tramway being completed, as many as possible of the old vehicles will be withdrawn, so that the relief will be speedily felt, whilst the travelling public will have fully equal accommodation. Lower fares are also promised, and as the expenses of working, after the first outlay, will be less than at present, there is every reason to anticipate that the promise will be performed. Full details of the plan were inserted in the Mining Journal of Nov. 11, and we then also gave an account of the meeting of the London General Omnibus Company, at which 50,000l. were voted in furtherance of the undertaking, so that it will be seen that both the money and the action of the metropolis, and which will not admit of it being said that less populous cities are in advance of us.

**GENUINE CIGARS**—A company, with a capital of 50,000l., in 10s. shares (the Habana Cigar Company, Limited), has been formed for the purchase and sale of cigars of foreign growth and manufacture only, and for the purchase and sale of foreign tobacco. The difficulty which at present exists of obtaining Habana cigars in this country, except at an exorbitantly high price, is an acknowledged fact; whilst even where the highest price is given there is a total absence of anything like an adequate guarantee for either the genuineness or quality of the article supplied. A consideration of these circumstances has induced a small body of gentlemen, chiefly connected with the London Clubs, to form a company, having for its object the supplying consumers with genuine Habana cigars, at a reduction in price of from 20 to 80 per cent. upon what is ordinarily charged; and affording at the same time the security of a corporate body, pledged by their articles of association to deal in none but cigars of foreign, as contradistinguished from European, growth and manufacture. Mr. L. Silberberg, so well known in the cigar trade, has been appointed manager, and the board of direction is composed of Sir W. Dickson, Bart., Lord Garvagh, Rear-Admiral Dundas, Col. Hamhill, and A. Hanson, Esq. The company will always keep the celebrated brands—Carbanas, Figaro, Azucena, Guila, Globo, Intimidat, Nos. 1, 2, and 3 Manila cheroots, Castanon, Martinis, Larranaga, Lealceda, Nectar, Uguas, and Manila cigars—in stock, and trade will be carried on upon the ready money system.

**THE IRONSTONE OF CLEVELAND**—By far the most valuable and important "mountains of ironstone" remain at present untouched, in consequence of the absence of railway communication. The North Yorkshire and Cleveland Railway, which will be opened to Kildale on Feb. 1, will, in about twelve months open out immense tracts of ironstone, very much superior in quality to any ironstone at present worked in Cleveland, its percentage being from 40 to 50 per cent., and lying in solid rocks 8 to 12 ft. thick. This stratum lies almost immediately under the freestone; and from the absence of all impurities, (which exist more or less in the Cleveland stone at present worked), this seam of ironstone will be most valuable, particularly as a mixture, as it is very friable, and yields easily in the furnace. It is somewhat remarkable that throughout the entire of the Cleveland district hitherto opened, none of this description of stone has been discovered, but it is believed to have been worked in the Rathwaite, near Whitby, and considerable quantities have been shipped to Newcastle. It is expected to average 45 per cent. of metallic iron, and is remarkably free from sulphur and phosphorus. — Newcastle Chronicle.







results had been very satisfactory, as from the upper levels they obtained jack and lead that realised a good price.

Mr. AUSTIN considered there was a good future for them as they went down in depth. The committee of management were then unanimously re-elected.

Mr. KIRK said it was a treat to go over the mine to see the way it was laid out; there was no waste of material on the surface, as was the case on many mines he had visited, and the whole of the operations were carried on with the greatest economy.

Mr. BIRDSKY proposed a vote of thanks to the Chairman, committee, and secretary. The Chairman considered they owed a great deal to the secretary, as his friends held a considerable interest in the mine, and he had exerted himself a great deal apart from his duty as secretary, and he sincerely hoped they would all be rewarded for their patience and perseverance. The resolution was then carried with applause, and the proceedings terminated.

#### HOLMBUSH MINING COMPANY.

A meeting of shareholders was held at the office of the company, 17, Gracechurch-street, on Wednesday, Mr. FILLIS in the chair.

Mr. E. CRASSE (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

The following report, from Capt. Secombe, was then read:—

Dec. 24. — Since the last meeting the 160, east of the diagonal, has been driven east 7 fms.; the lode producing 2 tons of ore per fm. the whole of that driving, and continues equally good in the end; in the back of this level we are stopping east and west of Lesson's winze, by 13 men, at an average price of 2s. per fm. the lode producing 1 ton of ore per fm. In the 160, east from where the south part of the lode was intersected, a level was driven back west about 5 fms., for the most part of the driving yielding 1 ton of ore per fm., but being now small in the end it is suspended. The 160, west of the diagonal, has been extended 9 fms., on a lode worth 15s. per fm.; this end is extended west of the diagonal shaft 32 fms., and intersected the great cross-course, from which a considerable quantity of water is issuing; we shall probably have to drive some 5 or 6 fathoms through it to intersect the lode again to the west of it; from the circumstance of the lode being productive close to the cross-course on the eastern side, I fully anticipate a good productive lode on the western side, more especially as there is a productive lode gone down west of the great cross-course in the bottom of the 145. In the back of the 160, west of diagonal, a rise has been put up 2 fms., with the intention of communicating with a winze now in course of sinking below the 145; as soon as this ground is holed, which will be in about two months from this time, a good ventilation will be effected, and great facilities afforded for stopping the ground in the most economical manner. The lode in the rise is yielding 1 ton of ore per fm. of rich quality. The 145, west of the lead lode, has been extended 7 fms.; the lode in the greater part of this driving was composed of a rich leader of yellow ore, about 4 in. wide; the lode now in the end is a little larger, but not producing any ore to value; a level has also been driven east from where this part of the lode was intersected 2 fms., but the lode being small it was suspended and the ground set on tribute; a rise has been also continued in the back of this level and communicated with the winze sunk from the 132, on the new copper branch in the 145; the end has been extended west 7 fms., the lode yielding 1 ton of ore per fm.; a pitch is set in the back of this level to four men, at 9s. in 17. In the 145 south on the lead lode, the end has been extended south 7 fms., the lode for the most part of the driving being from 3 to 3 ft. wide, composed of floor-spar, interspersed with silver-lead ore, opening up some tribute ground that will eventually leave a profit to the adventurers. In the 132 south, on the lead lode, the level has been extended south 6 fms., a level has also been extended west from the main lode 4 fms., where a branch was intersected, 1 ft. wide, composed of floor-spar, mixed with silver-lead ore; this branch appears to be approaching the main lode in a southerly direction, and will most probably fall into it as the end on the main lode is extended a few fms. further south; a little beyond this, in the 130, is where the good productive lode is gone down in the bottom, and which we hope to discover in the 124 cross-cut, north of Wall's engine-shaft, has been extended 7 fms.; one or two small branches have been met with, but are too diminutive to produce alteration; there is no doubt of the main lode being yet further north. On the flap-jack lode, in the 145, the level has been extended west of the great cross-course 7 fms., making the total distance driven west of the cross-course 12 fms.; the ground in the whole of this driving has been intersected by a variety of sparry cross-courses, so close to each other as to prevent the formation of any lode between them; when we get clear of those dislocations I anticipate a productive lode; this end is now driven to within 35 fms. of the lead lode, or perhaps less, and I should recommend it being pushed on to that point as fast as possible, as this level will develop the flap-jack lode in that direction, and afford a great facility for extending the level south on the lead lode. The amount of ore ground which can be made available is as follows:—Back of 160 east and bottom of 145 east, 600 tons at 10s., 6000l.; back of 160, west of the diagonal, 100 tons at 15s., 1500l.; bottom of 145, west of diagonal, 300 tons at 10s., 3000l.; bottom of 145, west of lead lode, 200 tons at 10s., 2000l.; back of 145, west of lead lode, 100 tons at 9s., 900l.; back of 145, east of diagonal, 60 tons at 9s., 540l.; sundry places, 100 tons at 8s., 800l.; 14,740l. In addition to this there is a lode driven in the bottom of the 160 south, 36 fms. in length (but not yet available), worth 12s. per fm., which, at 5 fms. depth, is worth 1600l.—N. SACCOMBE.

The CHAIRMAN said the report just read was written some days since for the meeting. In order that the proprietors might have an opportunity of examining it, and be enabled to ask any questions upon it; but the directors had received a report five days later, dated Dec. 29, which he would call upon Mr. Crasse to read.

Mr. CRASSE then read the following report:—

Dec. 29.—In the 145 west the lode in this end is much the same as last report. In the 145 west, on the new copper branch, the lode has not been taken down in the past week; but, from the appearance of the lode, it will still yield 1 ton of ore per fathom. In the 145 south, on the lead lode, the men are driving by the side of the lode, which is large and kindly. In the 160, east of diagonal, the lode in this end continues to yield 2 tons of ore per fm. The eastern and western stopes, in the back of this level, will each produce 1½ ton of ore per fm. In the 160, west of diagonal, this level has now been driven on the lode close up to the great cross-course, we shall push onward the level through it with all possible expedition to intersect the lode again to the west of the cross-course, as sanguine hopes are entertained of meeting with a good productive lode between it and the lead lode. The lode in the rise in back of this level continues to yield full 1 ton of ore per fm. of good quality. In the 145, on the flap-jack lode, the lode west of the cross-cut is producing a little ore, but not yet enough to value. In the 132 south, on the lead lode, there is no improvement, nor do we expect any until we get further south under the ore ground gone down in the bottom of the level above. In the 124 cross-cut, north of Wall's, there is no alteration.

A SHAREHOLDER wished to know whether the estimates in the report were at the present price of copper ore, as they were put at 3s., 9s., and 10s. per ton, and Mr. BIRDSKY observed, that at the last sale the loss, through the fall in the standard, was upwards of 3000l.

The CHAIRMAN remarked that Capt. Secombe hoped by this time to pay cost; and if the standard had continued the same as when he made that statement, they would not only have paid cost, but made a small profit.

A statement of accounts was read, from which the following is condensed:—

Balance last account (including 10000l. borrowed from bankers)	£2381 14 11
Mine cost, September and October	2995 7 0 = £4675 1 11
Copper ore sold (less dues 29s. 5s. 11d.)	£1728 9 3
Lead ore sold (less dues 7s. 19s. 1d.)	469 6 2 = 2197 15 5
Balance against adventurers	£2189 6 6

The CHAIRMAN said the directors had received a letter from Capt. Secombe, stating his reason for not paying the current cost of the mine, which arose, as they all knew, from the great fall in the standard. The letter having been read,

Mr. BIRDSKY observed, that as he was of opinion it explained the reason he had not fulfilled his promise, and over which he had no control.

Mr. SAUNDERS wished to know whether there was any better prospects for the next six months? The CHAIRMAN considered the report very favourable, but it was impossible to tell what the result might be, as it was in the earth, and a great deal must depend upon the standard.

Mr. SAUNDERS moved that the reports and accounts be received and adopted, which was seconded, and carried unanimously.

Mr. WARTON said the business transacting on the mine continued the same, notwithstanding the reports that had been laid before them, and led them on for twenty years. They had determined to wind-up the mine, when Capt. Secombe came forward with his explanations, that the mine should pay cost in two years. That time had expired. He wished to know what prospect had they of paying calls in 1858 instead of receiving dividends?

Mr. JAMES said it was true that two years ago it was stated that calls should be at an end, and cost paid, but the proprietor forgot that the mine at that time was nearly 4000l. in debt, and they had been working it down from that amount to about 1600l. The directors looked about two-thirds of the mine, and he did not think they would make unnecessary calls; and he must call their attention to the state of the mine, and what it was two years ago. He considered the shares now worth three times the value they were then at.

Mr. SAUNDERS wished to know the gross amount they were now in debt? Mr. JAMES replied, about 2200l.; but since then the October cost and the last sale had reduced this amount to about 1600l.

The CHAIRMAN said another call must be made, but the directors thought they would wait until after the present meeting, in order that the state of the accounts might be seen.

Mr. WARTON said he had a resolution to propose to the meeting, which was that they should employ an impartial person to look to the state of the accounts, and also to examine the mine. He had been told that a large saving could be effected with the merchants. He had made it his business since the last meeting to communicate with several gentlemen well acquainted with mines, and a very worthy man had recommended Capt. John Taylor, of Cradock Moor Mine, as one who would honestly and correctly report to the proprietors. During his enquiries he had heard Capt. Secombe spoken of in the very highest terms, both as a good miner and an honourable man; and the information he had received confirmed the character given of him, but the question was whether he had time to carry out all the work which was imposed upon him.

Mr. JAMES said that there could not be the least objection to the proposition of Mr. Warton, which was very different to appointing a parser. They had got a clerk to keep the accounts. The coal, which was the principal article in the merchants' bills, was regularly contracted for.

Mr. JAMES having seconded the resolution, it was unanimously passed. The CHAIRMAN said the business having concluded, he would take the opportunity of alluding to the lamentable loss of their respected friend, Mr. Hacket, and he was sure all would receive the intelligence with the same regret. Mr. Hacket had expressed much anxiety about this meeting, and was at a meeting of the board on Wednesday last. He need not say how much all would feel his loss as a director, and it might be some satisfaction to his widow and family if the meeting expressed their regret at the great loss they had sustained.

Mr. WARTON bore testimony to the amiable qualities of Mr. Hacket, and his valuable services as a director for so long a period. He concluded by moving a resolution that the condolence and sympathy of the meeting be given to the widow and family, expressing their great regret at the loss they had sustained. The resolution was seconded and carried unanimously.

Mr. WARTON wished to know whether they intended to fill up the vacancy in the board? The CHAIRMAN suggested that the question should stand over until the next annual meeting.

Mr. WARTON proposed a vote of thanks to the directors, observing that whether the mine paid or not, the most zealous attention was paid to their affairs.

Mr. BIRDSKY, in seconding the resolution, said, upon looking at the reports, he considered their prospects had greatly improved, and hoped when they met in March next they would be still better.

The resolution was then unanimously carried.

The CHAIRMAN, in returning thanks on behalf of the board, said they would do the utmost in their power to carry out the undertaking to a successful issue.

#### WHEAL POWELL, IN THE PARISH OF KENWYN, NEAR TREBU.

VALUABLE MACHINERY AND MATERIALS FOR SALE.

MESSRS. WARE AND SON WILL SELL, BY AUCTION, on Wednesday, the 6th day of January, 1858, at Eleven o'clock in the forenoon, the WHOLE of the MACHINERY and WORKING PLANT on the above mine, comprising an excellent 30 in. cylinder STEAM-ENGINE, 8 ft. stroke in cylinder, and 6 ft. in shaft, and boiler about 10 tons; shears and sheaves, complete; 8-arm capstan; about 44 fms. of 9, 10, and 11 in. pumps, with doorpieces, working-barrels, and windrods; 30 fms. of 1½ in. bucket-rods; horse-whim, with shaft tackle and sheaves; 30 fms. of whim-rope; 50 fms. of ½ in. chain; excellent double power crab winch; 40 fms. iron stave ladders, nearly new; one piece of 9 in. main rod, 55 ft. long, and one piece of 6 in. main rod, 45 ft. long; whim kibbles, air pipes, zinc pipes, barrel of tar, powder, 30 in. smith's bellows, carpenters and smith's tools, old iron and rope, barrow, new and old timber, with several lots of account-house furniture, &c. The auctioneers beg respectfully to invite punctual attendance, as they purpose selling the whole in one day. Catalogues will be ready one week prior to sale. Dated Paris-street, Exeter, Dec. 23, 1857.

#### IMPORTANT TIN MINE IN ST. JUST, PENWITH, CORNWALL, FOR SALE.

MR. BELLINGER WILL SELL, BY AUCTION, on Monday, the 18th day of January next, at Three o'clock in the afternoon, at the Three Tuns Hotel, Penzance, in One Lot, on such conditions as shall be then produced, the SETTS of BALLESWIDEN MINE, in St. Just, with the DRAFT ENGINE, 45 in. cylinder, with two boilers; STEAM STAMPS, of 35 in. cylinder, with two boilers; THREE STEAM WHIMS, with four boilers; and OTHER MACHINERY, ELECTIONS, and PLANT, of every description, as the mine stands, in full operation and working order.

Leave to view the mine, and inspect the setts, may be obtained at the offices of Mr. R. V. DAVY, the purser, East-street, Penzance; and all other particulars of the auctioneer, and Messrs. MILLET and BOKLAGE, solicitors, Penzance.

Dated Dec. 23, 1857.

#### POSTPONED FROM FRIDAY, 1st JAN., TO TUESDAY, 5th JANUARY.

ON TUESDAY, the 5th January, at Twelve o'clock, at the Broker's Office, 16, Exchange-buildings, Liverpool, 166 barrels and 307 half-barrels PHOSPHATE OF LIME, landed ex Robert Kelly, from New York.—Apply to Messrs. GUNN and Co., merchants, or to J. H. RAYNER and Co., brokers, Liverpool.

#### SOUTH WALES.—MR. ARTHUR O. DAVIES, of Dowlais, is

authorised to TREAT for the SALE of TWO VERY VALUABLE GOING COLLIERIES in South Wales.

Also, TO LET, an EXTENSIVE TRACT OF STEAM COAL, on a long lease, at a moderate royalty, with a railway running through the property.

For terms, apply as above.

TO SMALL CAPITALISTS.—TO BE SOLD, for £150 only, the valuable PATENT RIGHT of IMPROVEMENTS IN FURNACES TO PREVENT SMOKE, peculiarly ADAPTED TO STEAM-BOATS, which, by the recent Act, are compelled to prevent the issue of smoke. The inventor, who is the chief engineer of a large steam packet company, has tried the plan on several large ships with great success, certificates of which may be seen; and the royalties will be great in another year or two. He is going abroad, and, therefore, wishes to part with the patent.—Letters only to "L. L. Esq.," Mr. Deacon's, 154, Leadenhall-street.

#### TO IRONMASTERS, ENGINEERS, AND FOUNDERS.—THE HARRINGTON IRON COMPANY, now PREPARED TO SUPPLY MELTING FORGE PIG IRON, made from the rich HEMATITE IRON ORES of CUMBERLAND.—Address, HARRINGTON IRON COMPANY, Cumberland.

VALUABLE COLLIERIES AND COLLIERY PLANT, AT WATNALL AND GREASLEY, NOTTINGHAMSHIRE, FOR SALE BY PRIVATE CONTRACT.—TO BE SOLD, BY PRIVATE CONTRACT, by order of the Assignees, under a Deed of Assignment, the UNEXPIRED TERMS OF YEARS in ALL those COLLIERIES, situate at Watnall and Greasley, in the county of Nottingham, lately worked by Mr. James Morley, with the STEAM-ENGINES, RAILS, IMPLEMENTS, MACHINERY, GEARING, and PLANT, therein and thereon, including a PRIVATE RAILROAD to the Nottingham Canal; inventories of which may be inspected at the collieries, and at the office of Mr. HUNT, solicitor, Weekday Cross, Nottingham.

An excess, estimated at £3000, in respect of minimum rent, has been paid to one of the lessors, of which excess the purchaser will have the benefit.

Approved security will be taken for payment of the purchase-money by instalments. The terms of the leases and contracts under which the collieries are held may be known, and any further particulars obtained, on application at the offices of Mr. HUNT, of Messrs. W. and R. EXFIELD, solicitors, Nottingham; or of Mr. F. BAKER, solicitor, Corn Market, Derby.

#### IRONSTONE AND COAL, CARMARTHENSHIRE.—TO BE

LET, the numerous VEINS of excellent IRONSTONE and the COALS in the FARMS of CWM-HIDER, CWM-GRWYLO, and PEN-Y-GRAG, situate near Pontyberem, in the Gwendraeth valley, and consisting of about 160 acres. The whole of these veins are on the north or foot of the lowest measures of this coal basin, and are well known to produce the best ironstone in South Wales.—For particulars, apply to Mr. JOSHUA RICHARDSON, C.E., Neath.

TO BE LET, EXTENSIVE ROYALTIES OF COAL, amounting to 1000 acres, to which more may be added, if requested, in the township of Fishburn, county Durham, the seams of which have been bored to. They are known to be applicable to steam-boat, manufacturing, and coking purposes.—For particulars, plans, &c., apply to Mr. THOS. E. FORSTER, 7, Ellison-court, Newcastle; or to Mr. E. F. BOYD, Urpeth, Chester-le-street.—Oct. 8, 1857.

PUMPING AND WINDING ENGINES.—FOR SALE, an excellent 50 in. PUMPING ENGINE, 10 ft. stroke, two boilers 10 tons each, in perfect condition, nearly new, with fire-proof house. A 24 in. WHIM HORIZONTAL ENGINE, with 10 tons boiler, nearly new, in excellent condition, and drawing machine attached.

As these engines are very superior in make and condition, parties requiring engines will do well to examine them.—Apply to Mr. C. WESCOMB, 21, Southwark, Exeter.

STEAM BOILERS.—COAL PROPRIETORS and others requiring BOILERS, for home use or export, of first-rate make, cheap, and proved to a high pressure, apply to ELLIS LEVER, Ellesmere-place, Stockport-road, Manchester.

STEAM PUMPS, FOR LAND AND MARINE PURPOSES, SINGLE or DOUBLE ACTING; sizes from 2½ to 12 in. diameter, and from 4 to 18 in. stroke; by JOHN CAMERON. Used for feeding boilers, raising water (for reservoirs, tanks, irrigation, &c.), turning power, or as a steam fire engine. Works, Egerton-street, Hulme, Manchester.

AIR SHEETING, or BRATTICE CLOTH, made expressly for COLLIERY PURPOSES, in all widths, from 18 in. to 80 in.—Samples, with price, on application to the manufacturer, ELLIS LEVER, Ellesmere-place, Stockport-road, Manchester.

#### WICKLOW COPPER MINE COMPANY.—THE STATED

HALF-YEARLY MEETING of this company will be HELD at their office, 10, Leinster Chambers, 43, Dame-street, on Thursday, the 14th day of January next, at the hour of Twelve o'clock. The statement of accounts and report will be ready for delivery to debenture holders on Thursday, the 7th proximo.

A notice is now given, that, after the business of said meeting is concluded, a SPECIAL EXTRAORDINARY MEETING of debenture holders of said company will be HELD at same place, to consider and resolve whether or not this company shall register itself as a company under the Joint-Stock Companies Acts, 1855-1857, and whether with or without liability; and if an affirmative resolution should be passed on the above question, or any part thereof, also to consider and resolve upon the doing of the necessary acts, and the confirming of the necessary authorities, for carrying into effect such affirmative resolution.—Dublin, Dec. 31, 1857.

#### IN CHANCERY.

In the Matter of the JOINT-STOCK COMPANIES WINDING-UP ACTS, 1848 and 1849, and of the MEXICAN AND SOUTH AMERICAN COMPANY.

THE MASTER OF THE ROLLS, the Judge of the High Court of Chancery to whose Court this matter is attached, has this day APPOINTED ROBERT PALMER HARDING, of No. 5, Serle-street, Lincoln's Inn, in the county of Middlesex, accountant, OFFICIAL MANAGER of this company.

GEORGE HUME, Chief Clerk. AMORY, TRAVERS, AND SMITH, 25, Throgmorton-street, Solicitors. Dated this 8th day of December, 1857.

#### THE MASTER OF THE ROLLS AT CHAMBERS.

In the Matter of the JOINT-STOCK COMPANIES WINDING-UP ACTS, 1848 and 1849, and of the MEXICAN AND SOUTH AMERICAN COMPANY.

NOTICE IS HEREBY GIVEN, that all parties CLAIMING to be CREDITORS of the above-named company are to COME IN and PROVE THEIR DEBTS before the Master of the Rolls, the Judge of the High Court of Chancery to whose Court the winding-up of this matter is attached, at his Chambers, Rolls-yard, Chancery-lane, in the county of Middlesex; and until they shall so come in they will be precluded from commencing or prosecuting any proceeding for recovery of their debts. And notice is hereby further given, that the said Judge has appointed Friday, the 8th day of January, 1858, at Twelve o'clock at noon precisely, at his Chambers as aforesaid, for hearing and adjudicating upon the claims; and the creditors of the said company are hereby called upon by the said Judge to meet before him, at the time and place before-mentioned, for the purpose of appointing one or more persons or persons to represent all the creditors of the said company in or about the proceedings before him, or in and about so many and such of the same proceedings as to the said Judge shall from time to time seem expedient.

Dated this 10th day of December, 1857. GEORGE HUME, Chief Clerk.

The particulars of all claims, together with a copy of the affidavit to be used in support thereof, must be forwarded to the Official Manager on or before the last day of January next.

R. P. HARDING, 5, Serle-street, Lincoln's Inn, Official Manager. AMORY, TRAVERS, AND SMITH, 25, Throgmorton-street, Solicitors.

#### CHEMICAL LABORATORY AND ASSAY OFFICE,

1, OXFORD COURT, CANNON STREET, LONDON, E.C. Mr. E. V. TUSON, F.C.S., F.S.A. (late Demonstrator of Chemistry at St. Bartholomew's Hospital), may be CONSULTED on all SUBJECTS involving CHEMICAL PRINCIPLES; and is prepared to EXECUTE all kinds of METALLURGICAL AGRICULTURAL, COMMERCIAL, and other ANALYSES.

Mr. TUSON has a vacancy for a pupil, resident or otherwise.

#### ASSAY OFFICE AND LABORATORIES,

DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON. Conducted by JOHN MITCHELL, F.C.S., Author of "Manual of Practical Assaying," Metallurgical Papers, &c.

Assays and Analyses of every description performed as usual. Special Instruction in Assaying and Analysis. Consultations in every branch of Metallurgical and Manufacturing Chemistry. Assistance rendered to intending Patentees, &c.

For amount of fees, apply to the office, as above.

#### TO IRONMASTERS, PIPE FOUNDERS, &c.

TENDERS FOR THE SUPPLY OF CAST-IRON PIPES.

The Directors of the Newport and Pigeonville Water-Works Company, Monmouthshire, are ready to receive TENDERS for the SUPPLY of about 2½ miles in length of either 15 or 18 in. good sound vertically CAST-IRON SOCKET PIPES, in 9 ft. lengths, put down at convenient places in the town of Newport, as may be directed. Also, 25 tons of 2 to 5 in. CAST-IRON SOCKET PIPES, delivered at the company's yard. The pipes to be proved perfect to a pressure of 300 ft.

Drawings and specification may be seen at the company's offices, Stow Hill, Newport, Monmouthshire.

Tenders to be addressed to the directors, and delivered not later than Ten o'clock A.M. on the 12th January, 1858. The directors do not bind themselves to accept the lowest or any tender.

Newport, Monmouthshire, Dec. 29, 1857. HENRY W. WEBBER, Sec.

#### LONDON AND NORTH-WESTERN RAILWAY.

CONTRACT FOR PERMANENT WAY MATERIALS.

The Directors of the London and North-Western Railway Company are prepared to receive TENDERS for the SUPPLY of the undermentioned MATERIALS:—

6000 tons of CHAIRS. 200 tons of BOLTS and NUTS.

1000 tons of FISH PLATES. 370,000 OAK KEYS.

170 tons of SPIKES. 735,000 OAK TREAILS.

Specifications, with particulars, may be obtained on application to Mr. WOODHOUSE, at the Permanent Way Office, Railway Station, Stafford.

Tenders addressed to the secretary, at this office, to be sent in on or before Wednesday, the 5th January, 1858. By order, CHARLES EDWARD STEWART, Sec.

Secretary's Office, Euston Station, Dec. 31, 1857.

#### CALEDONIAN RAILWAY COMPANY.—At an EXTRAORDINARY GENERAL MEETING of the Caledonian Railway Company, held at the Merchants' Hall, Hutcheson-street, Glasgow, on Tuesday, the 23rd day of December, 1857,

WILLIAM JOHNSTON, Esq. (Chairman of the Board of Directors), in the chair.

The advertisement calling the meeting having been read,

It was resolved unanimously:—

That, in terms of the 34th Section of the Caledonian Railway (Grant Branches) Act, 1857, the company shall, and do hereby, guarantee in perpetuity a fixed dividend of 5 per cent. per annum upon the Caledonian Railway Grant Shares, numbered 601 to 1200 inclusive, in respect of which notices have been given by the holders thereof to the secretary of the company of their desire to receive the said fixed dividend, in lieu of the proportion appertaining to the shares held by them respectively of the net profits arising from the railway and works, authorised by the said Act.

W. JOHNSTON, Chairman. ARCHD. GIBSON, Sec.

#### BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY

COMPANY.—Creation of 55,555 New Shares, of £15 each.

The Board of Directors hereby inform the shareholders of the Bombay, Baroda, and Central India Railway Company, that the Hon. East India Company have intimated their approval of an increase of the capital of this company to the extent of £1,000,000, with a guaranteed interest at the rate of 5 per cent. per annum upon such additional capital, on condition that a fourth part of that capital is paid into the Company's treasury on or before the 15th day of March next. It has accordingly been resolved that the said new shares be offered to the shareholders of this company registered on the 15th day of January next, in the proportion of four new shares to every three existing shares, conditionally upon the execution of the Deed of Accession, and conditionally as to parties on the English register of shareholders upon the payment of £4 10s. per share, in part payment of the amount of such new shares, on or before the 15th day of March next, at the Bank of England, Threadneedle-street, to account of this company; and in case of parties on the Indian register of shareholders, conditionally, upon payment to the Oriental Bank Corporation, at Bombay, to the account of this company of £4 10s. per share, at the exchange of 1s. 10d. per rupee, on or before the 29th day of April next.

The parties accepting such new shares may, in addition to the sum of £4 10s. per share, and in anticipation of future calls, pay the further sum of £4 10s., making £8, or £15 10s. per share, and shall be entitled to interest on the amount so paid, in anticipation of calls, at 5 per cent. per annum from the time when the same shall be paid to the Honourable East India Company. With a view to the convenience of parties who may wish to pay the deposit or payments in anticipation of calls before the 15th day of March next, the directors have arranged that such payments made into the Bank of England to the credit of this company on or before the 8th or 25th of February next, shall be paid into the treasury of the East India Company respectively on the 10th and 27th of Feb., from which dates the guaranteed interest will accrue.

Circular letters of allotment, with directions for payment and forms of receipt, will be forwarded to the address of the several shareholders whose names shall stand on the register on the 15th day of Jan., 1858.

The Transfer-books of the company will be closed from the 15th to the 22d of January, 1858, both inclusive, for the purpose of preparing the list of shareholders entitled to allotments of the above capital.

By order, C. H. KENNEDY, Sec.

Offices, 10, Liverpool-street, New Broad-street, London, Dec. 31, 1857.

#### RAILWAY PASSENGERS' ASSURANCE COMPANY.

JAMES CLAY, Esq., M.P., 25, Montague-square, CHAIRMAN.

J. HERKELEY HARRISON, Esq., 24, Great Tower-st. City—DEPUTY-CHAIRMAN.

JAMES B. ALEXANDER, Esq., 21, Tottenham-yard, City.

WILLIAM C. BULLER, Esq., 10, Old Bailey, Lincoln's Inn.

GEORGE CLIVE, Esq., M.P., Sanderstead-court, Croydon.

THEOPHILUS CLIVE, Esq., Hampton Court.

SAMUEL WHITEFIELD DUKES, Esq., 14, Whitehall-place.

WILLIAM EADE, Esq., 11, Dawson-place, Westbourne-grove.

HARVEY MORTON FARQUHAR, Esq., 16,



**MARINE SMOKE PREVENTION.**  
BY MR. LEE STEVENS.  
No charge for patent right unless successful.  
1, FISH STREET HILL, CITY, LONDON, E.C.

**LOCOMOTIVE SMOKE PREVENTION.**  
BY MR. LEE STEVENS.  
No charge for patent right unless successful.  
1, FISH STREET HILL, CITY, LONDON, E.C.

**POTTERY KILN SMOKE PREVENTION.**  
BY MR. LEE STEVENS.  
No charge for patent right unless successful.  
1, FISH STREET HILL, CITY, LONDON, E.C.

**LAND FURNACE SMOKE PREVENTION.**  
BY MR. LEE STEVENS.  
No charge for patent right unless successful.  
1, FISH STREET HILL, CITY, LONDON, E.C.

**OVERLAND ROUTE.—STEAM TO INDIA AND CHINA, &c.**  
VIA EGYPT.—The PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS for the MEDITERRANEAN, EGYPT, ADEN, BOMBAY, CEYLON, MADRAS, CALCUTTA, the STRAITS, and CHINA, by their steamers leaving Southampton on the 4th and 10th of every month. And for MANILLA by those of the 4th of the month. For further particulars, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

**STEAM UNDER SIXTY DAYS ECLIPSED.**  
The MARCO POLO of this line sailed with the steam-ship ROYAL CHARTER from Melbourne, and arrived in Liverpool eight days before her.

**APPOINTED TO SAIL FROM LIVERPOOL**  
On the 5th of each Month, for MELBOURNE.  
Forwarding Passengers by Steam to various Ports in

Ship.	Register.	Barth.	Captain.	Date.
MACAULAY	1139	3000	ROOKE	5th January.
MARCO POLO	1625	3500	CLARKE	5th February.
OLIVER LANG	1299	3000	OSBORNE	
OCEAN CHIEF	1092	2500	BROWN	
LIGHTNING	2090	4000	BYRNE	To follow.
SALIANHA	1503	3000	WATTS	

The above line is composed of the LARGEST, the FINEST, and FASTEST MERCHANT SHIPS in the WORLD, and have been built by the most celebrated builders of the day, including M'Kay, of Boston. They are commanded by men who have already rendered themselves famous, and their equipments and accommodations are unequalled by any line of ships afloat.

The Black Ball Line has had the distinguished honour of a visit from Her Majesty the Queen, who was most graciously pleased to say that she had no idea there were such magnificent ships in her merchant navy.

Freight and passage, apply to the owners, JAMES BAINES and Co., Liverpool; or to T. M. MACKEY and Co., 1, Moorgate-street, London, E.C.

**TO ENGINEERS, SHIP-BUILDERS, AND OTHERS INTERESTED IN SHEET-IRON STRUCTURES.**

**BERTRAM'S PATENT WELDING PROCESS.**  
This SIMPLE AND EFFICIENT PROCESS for UNITING WROUGHT-IRON PLATES in the construction of Marine, Locomotive, and Land Boilers, Ships, Boats, Caissons, Tanks, Pans, Bridge Beams, Girders, and Sheet-Iron Structures generally, by WELDING instead of RIVETING, combines, with great ECONOMY of LABOUR and MATERIAL, the certainty of greatly INCREASED STRENGTH, PERMANENT SOUNDNESS, and FREEDOM FROM LEAKAGE.

This invention having been most satisfactorily tested, the patentee is prepared to GRANT LICENSES for the USE of his PROCESS; and invites the inspection of a HIGH-PRESSURE TUBULAR BOILER, which has been constructed under his immediate direction, and may be seen at the works of the VICTORIA FOUNDRY COMPANY, engineers and ship-builders, Greenwich.

Applications for licenses, and particulars of works required, may be obtained at the office, 12, Buckingham-street, Adelphi, W.C., where samples of the welding may be seen. The welding furnaces will be supplied by the patentee's agent.

**PATENT WIRE ROPES, ONE-HALF THE COST OF HEMP ROPES.**

HENRY J. MORTON AND CO.'S (2, BASINGHALL BUILDINGS, LEEDS) PATENT WIRE ROPES, for the use of MINES, COLLIERIES, RAILWAYS, &c.; one-half the weight of hemp rope, and one-third the cost; one-third the weight of chains, and one-half the cost—in all deep mines these advantages are self-evident. References to most of the principal colliery owners in the kingdom.

**GALVANISED SIGNAL CORDS AND KNOCKER LINES;**  
will not rust or corrode, and not affected by the copper water in mines. Very strong, and not at all liable to break. Prices from 15s. per 100 yards.

**PATENT ASPHALTED ROOFING FELTS,** 1d. per foot.

**DRY HAIR BOILER FELTS,** saving 25 per cent. of fuel.

**PATENT BOILER COMPOUND,** for hot and cold water.

**FAIRBANK'S WEIGHING MACHINES,** all sizes.

**GALVANISED IRON ROOFING AND SPOUTING.**

**PATENT FLEXIBLE STEAM PACKING,** 1s. 3d. per lb.

**PATENT METALLIC PACKING,** 4s. per lb. (than leather).

**PATENT AMERICAN DRIVING BANDS,** much cheaper and more durable.

**FLAX HOSE PIPES,** for water, &c., one-fourth the price of leather hose.

**PATENT GALVANISED AIR-PIPES,** for ventilation.

**STOCK OF MINING AND RAILWAY STORES** in Liverpool and London:—viz. OILS, GREASES, COTTON WASTE, SPUN YARN, WHITE LEAD, VARNISHES, &c.; and at very low prices.—Address, 2, Basinghall-buildings, Leeds.

N.B. Illustrated price list on application.

**MOST IMPORTANT TO COLLIERY OWNERS AND COLLIERY MANAGERS.**

HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS, beg to call attention to their

**IMPROVED SIGNAL BELLS,** especially prepared to meet the requirements of the new Act for the Inspection of Coal Mines. It has met with the decided approval of many large colliery owners and managers. STEWART, ENGINEER, and CO., Price 15s., 17s. 6d., and 20s. each.

**BYRMAN'S PATENT ANEMOMETER,** for testing the ventilation.

Price 3s. 3d. to 4s. 4d. each.

**STEAM PRESSURE GAUGES,** very strong and accurate, 2s. and 2s. 12s. 6d. each.

For further information, apply to H. J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

**FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES,** for the use of IRONWORKS, COLLIERIES, RAILWAYS, WAREHOUSES, STORES, &c.

The most ACCURATE MACHINES in use, and the cheapest.

MACHINES of all sizes, from 1 cwt. to 30 tons, for RAILWAY WAGONS, CARTS, or WAGONS.

For prices and all other information, apply to HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS.

Patent Asphalted Roofing Felts, Boiler Felts, Galvanised Iron, Mining Stores, &c., in stock.

**PATENT COMBINED GAS WORKS, OF ALL SIZES,** for the use of PRIVATE HOUSES, MANSIONS, RAILWAY STATIONS, MILLS, COLLIERIES, VILLAGES, MINES, &c.

**FIXED COMPLETE,** with greatly improved means for purifying, &c.

Works of all sizes, from 10 lights to 500 lights, estimated for. The construction is so simple, that the works can be entrusted to the management of an ordinary labourer or servant. For LIGHTING CORNISH MINES these works are well adapted, and at a cost of one-half below the usual outlay.—Apply to

HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS.

SOLE LICENSEES AND AGENTS.

**ARNOLD AND SONS, WIRE WORKERS, WEAVERS, AND IRONMONGERS TO HER MAJESTY.**

No. 9, 12, and 18, FORT STREET, DEVONPORT, DEVON.

ARNOLD AND SONS being MANUFACTURERS of WIRE WORK, can with confidence ensure the strongest and best quality goods to all who entrust orders to their care.

**MINES SUPPLIED** with Brass and Iron Wire Sieves, Brass Machine Bottoms, Iron Cylinder Sifts, Copper Bottoms, Stamp Gears, Delving Serpents, &c.

**MINING MATERIALS** of every description supplied on the best terms.

Price Lists sent on application.

ARNOLD AND SONS have a very extensive Stock of Furnishing, Navy, Army, and General Ironmongery.—Devonport, Three Doors above the Post-office.

**THE LONDON WINE COMPANY LIMITED.**

With power to raise capital to the extent of £100,000.

**CHIEF OFFICES AND CELLARS,** 43 AND 41, LIME STREET.

**BRANCH OFFICE AND CELLARS,** 1, PRINCES STREET, REGENT STREET.

The Directors of the London Wine Company have made arrangements with cultivators of the vine in the various wine-producing countries of Europe to be supplied with PURE WINES and BRANDIES direct from the producers, and they can thus offer advantages seldom to be met with in other quarters;—for example, they can sell Sparkling and Creaming Champagne at 45s. 6d. per dozen, which is usually sold at 60s., and often at 72s.; a Pure Claret at 30s., worth, according to the tariffs issued by retailers, 3 and 4 guineas per dozen; Sherry, light gold, golden, or brown, at 36s. (this wine is shipped to the London Wine Company by the eminent firm, Duff, Gordon, and Co., and can with difficulty be met with elsewhere under 48s. to 54s. per dozen); Ports from 36s. per dozen upwards, according to age.

HENRY ROBERTSON, Manager.

**WINES FROM SOUTH AFRICA.**

PORT, SHERRY, &c. TWENTY SHILLINGS PER DOZEN.

These wines, the produce of a British colony which has escaped the vine disease (the vintage occurring in February may account for the same), are, in consequence, wholesome, and are warranted free from acidity and brandy, and are admitted by Her Majesty's Customs at half duty, hence the low price. A Pint Sample Bottle of each for 2d. stamps, bottles included. Packages allowed for when returned.

**EXCELSIOR BRANDY,** Pale or Brown, 15s. per gallon, or 30s. per doz. Terms, Cash. Country orders must contain remittance. Cheques to be crossed "Bank of London."

J. L. DENMAN, Wine and Spirit Importer, 65, Fenchurch-street, London.

Counting-house, First Door on the Left up Railway-place.

"Mr. Denman now supplies these wines at 20s. per dozen; and, as it is our rule not to speak in commendation of articles of which we are ignorant, it gives us much pleasure confidently to recommend these wines to our readers."—John Bull, Jan. 17, 1857.

"We have taken the trouble to try Mr. Denman's wines, and have also submitted them to several of the clergy, and the opinion formed is that they are worthy of being patronised."—Clerical Journal, Oct. 25.

**RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO.,** MIDLAND WORKS, BIRMINGHAM.  
BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS,  
IN STOCK—FOR SALE OR HIRE.

**RAILWAY, MINERAL, AND OTHER WAGONS ON HIRE.**  
Apply to the LANCASHIRE WAGON COMPANY (LIMITED), Bury.

**THE RAILWAY CARRIAGE COMPANY,** OLDBURY, NEAR BIRMINGHAM.  
MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.

**NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK,** FOR SALE OR HIRE.

**LONDON OFFICES.—31, GREAT GEORGE STREET, WESTMINSTER.**

**THE PERMANENT WAY COMPANY GRANT LICENSES** for the USE of ALL the IMPORTANT PATENTED IMPROVEMENTS in the PERMANENT WAY OF RAILWAYS. They undertake their inspection during the process of manufacture; and, in the case of cast-iron sleepers, guarantee their durability on terms which effect an important reduction in the cost of renewal. Every information will be given on application to W. HOWDEN, Sec. 26, Great George-street, Westminster.

**JOHN ROGERSON AND CO., NEWCASTLE-ON-TYNE, AND MIDDLEBROUGH-ON-TEES.**

**PIG, BAR, PLATE IRON, CHAINS, ANCHORS, FORGINGS, GIRDERS, PIPES, FOUNDRY WORK.**

**LONGRIDGE'S WEST HARTLEY STEAM COALS** (on the Admiralty List), COOKING, GAS, HOUSE, AND SMITH'S COALS, COKE, FIRE-BRICKS, &c.

**BURGIN AND WELLS, STEEL CONVERTERS AND REFINERS,** MANUFACTURERS OF RAILWAY CARRIAGE AND WAGON SPRINGS, IMPROVED CAST-STEEL FILES, &c.

**HOLLIS CROFT STEEL WORKS, SHEFFIELD.**

**JOHN H. PECK, MANUFACTURER OF RAILWAY OIL COVERS, CART AND WAGON COVERS, OIL CLOTH, STACK COVERS, BOAT SHEETS, TARPULIN, BRATICE CLOTH.**

**COKE AND CORN SACKS, POTATO BAGS, TWINE, &c., WIGAN.**

**LONDON AGENT.—T. E. WELLER, 15, Duke-street, Adelphi.**

**CALVERT'S PATENT PROCESS FOR MAKING COKE AND IRON FREE FROM SULPHUR.**

For LICENSES to USE the above process, apply to ROBERT LONGDON, Jun., 63, King-street, Manchester.

For APPLICATION of the PATENT to GAS WORKS, apply to Mr. GEORGE TRICKETT, Exchange Chambers, Manchester.

**SHEET ZINC AND SELLER.—ACTON BRIDGE ZINC ROLLING MILLS, NEAR NORTHWICH, CHESHIRE.**

SHEET ZINC, out of the best selected SILESIA SELLER, refined and rolled at these mills, CONSTANTLY ON HAND, of all usual gauges, or rolled to order any practicable length, width, or thickness, to suit purchasers, on moderate terms.

Also, TELEGRAPH PLATES, SHEATHING FOR VESSELS, &c. OLD ZINC and SHEATHING PURCHASED. SILESIA SELLER ON SALE.—Apply to the Manager, at the Mills; or at the office, 3, Harrington-street, Liverpool.

**SHORTRIDGE, HOWELL, AND JESSOP, HARTFORD STEEL WORKS, SHEFFIELD.** SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS BOILER-PLATE METAL, combining the strength and durability of steel with the malleability of copper; warranted to bear double the pressure of the best boiler-plate iron; RIVETS, ANGLES, and STAYS of the same material.

Also, RUSSELL and HOWELL'S PATENT CAST-STEEL TUBES, for multitubular boilers, shafting, railway axles, &c.

Application to be made to SHORTRIDGE, HOWELL, and JESSOP, Hartford Steel Works, Sheffield; and Messrs. HARVEY and Co., 12, Haymarket, London.

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**AN ACT OF GRAT**



## THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5130	Alfred Conso (cop.), Philham [S.E.] 27. 11. 10d.	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1824	Balwelliden (tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4000	Bedford (tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
240	Boscan (tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
200	Botallack (tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1200	Brightside and Proggitt Grove, Derbyshire.	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
100	Brynford Hall (lead), Flint.	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1000	Bryntall, Llanidloes, Montgomeryshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
420	Budnick Conso (tin), Ferran	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
600	Bwlch (silver-lead), Cardiganshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4000	Calstock Conso (copper)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1000	Calz Brea (copper, tin), Illogan	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2000	Carnarvon (tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2000	Carn Cwm Bwyo (lead), Cardiganshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2000	Collacombe (copper), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	Condarrow (copper, tin), Camborne [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1000	Craddock Moor (copper), St. Cleer	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
30000	Craven Moor, Limited (lead), Yorkshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
125	Cwmystwith (lead), Cardiganshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
280	Derwent Mines (silver-lead), Durham	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Devon Great Conso (cop.), Tiverton [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
672	Dine Dore (tin), Gwilt	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
172	Doleath (copper, tin), Camborne	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
12000	Drake Wells (tin, copper), Calstock	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
200	East Dore (lead), Cardiganshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
200	East Falmouth (lead), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	East Wheal Margaret (tin), Illogan	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
8700	Exmouth (silver-lead), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1400	Eyam Mining Company (lead), Derbyshire.	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4900	Fowey Conso (copper), Tiverton	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4440	General Mining Co. for Ireland (cop., lead)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2000	Goginan (silver-lead), Cardiganshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Gonamena (copper), St. Cleer	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
243	Graham and St. Aubyn (copper)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	Great South Tolus (S.E.)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	Great Wheal Vor (tin, cop.), Helston [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
119	Great Work (tin), Gernoe	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Herodford (lead), near Liskeard	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	Hingston Down (copper), Calstock.	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2000	Holyford (copper), near Tipperary	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2500	Isle of Man (Limited)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
76	Jamaica (lead), Mold, Flintshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
20	Laxey Mining Company, Isle of Man	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
180	Levant (copper, tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
5000	Lewis Mines (tin, copper), St. Erth	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
400	Lisburne (lead), Cardiganshire, Wales	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	Marke Valley (copper), Cardigan	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
5000	Mendip Hills (lead), Somerset	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
5000	Merilyn (lead), Flint	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1800	Minera Mines (Limited)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
5000	Mining Co. of Ireland (copper, lead, coal)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
5000	Nantes and Penrhyn (Limited) (S.E. shares)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
8400	Nether Heath, Westmoreland	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
470	Newlands Mining Company, Co. Down	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
700	North Pool (copper, tin), Pool	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
700	North Pool (copper, tin), Pool	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	North Wheal Bassett (cop., tin), Illogan	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6400	Par Conso (copper), St. Blaise [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
500	Peak United (lead), North Derbyshire	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
200	Phoenix (copper, tin), Linkingborne	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1000	Pobberro (tin), St. Agnes (Preferential)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1772	Doitto	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
560	Providence Mines (tin), Uny Lelant	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2500	Rhwydell and Bacheidon (lead)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
512	Rosewarne United (copper, tin), Gwinnear	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
12000	Sortridge Conso (cop.), Whitechurch [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	South Caradon (copper), St. Cleer	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
125	South Crinns (copper), St. Austell	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	South Tolgus (copper), Redruth, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
490	South Wheal Freat (copper), St. Erth	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Sparne Conso (tin), St. Just, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
200	Sparne Moor (copper), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
970	St. Aubyn and Grylle (cop., tin), Breage	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
20000	St. Day United (tin and copper)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
94	St. Ives Conso (tin), St. Ives	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
9000	Tamar Conso (all-lead), Beeralston [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	Tinoroff (copper, tin), Pool, Illogan [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
572	Trevelyan Conso (tin), St. Ives	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
56	Trevelyan (copper), Gwinnear, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Trevelyan (copper), Gwinnear, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4000	Trevelyan (copper), Gwinnear, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4000	Trevelyan (copper), Gwinnear, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
100	Trumpet Conso (tin), near Helston	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
400	United Mines (copper), Gwinnear [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
30000	Valley of Towry (lead), Carmarthen [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
512	Wendron Conso (tin), Wendron	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	West Bassett (copper), Illogan [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	West Caradon (copper), Liskeard [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	West Damsel (copper), Gwinnear	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	West Providence (tin), St. Erth	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
400	West Wheal Seton (copper), Camborne	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
228	Wheal Arthur (copper), Calstock	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
240	Wheal Bal (tin), St. Just	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
512	Wheal Bassett (copper), Illogan [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	Wheal Basset (copper), Redruth [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
250	Wheal Clifford (copper), Gwinnear	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
100	Wheal Fortescue, Bodmin	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
128	Wheal Friendship (copper), Devon	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
024	Wheal Grylle (copper, tin), Breage	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
512	Wheal Jane (silver-lead), Kea	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
5000	Wheal Kitty (tin), St. Agnes	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
430	Wheal Mary Ann (tin), Uny Lelant	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
415	Wheal Margaret (tin), Uny Lelant	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Wheal Mary Ann (tin), Uny Lelant [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
40	Wheal Owles, St. Just, Cornwall	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
240	Wheal Reeth (tin), Uny Lelant	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
198	Wheal Seton (tin, copper), Camborne	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1040	Wheal Trelawny (all-lead), Liskeard [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
1024	Wheal Tremayne (tin, copper), Gwinnear	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
4000	Wheal Wrey (lead), St. Ives	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
6000	Wicklow (copper), Wicklow	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.

\* Dividends paid every two months. † Dividends paid every three months.

## FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
10000	Altan and Quenagen Un. (cop.), Norway	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2404	Burra Burra (copper), South Australia	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
12000	Cobre Copper Company (cop.), Cuba [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
10000	Copio Mining Company, Chile [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
20000	General Mining Association, Spain [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
15000	Linares (cop. of Portugal) [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
10000	Lustanion (cop. of Portugal) [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
10000	Marquitta and New Granada [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
25000	Peninsular Mining Company (Limited)	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
10000	Pontgibaud (silver-lead), France [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
7000	Royal Santiago (copper), Cuba [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
11000	St. John del Rey	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
43174	United Mexican (silver), Mexico [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
80676	North British Australasian [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.

## NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
20000	Australian [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
40000	Chancellorville Freehold	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
80000	Clarendon Conso [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
35040	Cologne Mining Company	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
350000	Copper Mines of Eng. [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
12000	Ditto, Pref. 7 1/2 per cent. [S.E.]	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
25000	Fortuna	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
2300	Kinsighal Mine, Germany	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
25000	Lithia, Virginia	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.
40000	London and Virginia	11 1/2	12 1/2	12 1/2	1 0	Dec. 7, 1857.

## PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Price
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